

IN THE MATTER OF

Transport and Works Act 1992
Transport and Works Act (Application and Objections Procedure)
(England and Wales) Rules 2006
The Transport and Works (Inquiries Procedure) Rules 2004

THE MORLAIS DEMONSTRATION ZONE ORDER

MORLAIS DEMONSTRATION ZONE, ANGLESEY

CLOSING SPEECH ON BEHALF OF
THE APPLICANT

Sir, mindful of your request at the start of this inquiry for closings to be written in a way that can be easily accommodated in his report, this has been drafted assuming no familiarity with the Applicant's opening statement.

*Also, given the length of this closing argument you will be unsurprised to learn it was not all written last night. We have therefore put, in **Annex 2**, a short form response to the key matters raised in others' closings.*

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Introduction

1. The Applicant ("**Menter Môn**") applies for an Order (the "**Order**") under the Transport and Works Act 1992 ("**TWA**"). The project will provide an offshore area for the installation and commercial demonstration of multiple arrays of tidal energy devices, to a maximum installed capacity of 240 Megawatts ("**MW**"). The project will also provide communal infrastructure through the provision of electrical infrastructure, including substations and onshore electrical cable route to grid connection ("**the Morlais project**").
2. The Order¹ sought would also authorise the compulsory acquisition and use of land for the purposes of the onshore works, and grant certain ancillary powers.
3. By this application Menter Môn also seeks a deemed planning permission under s. 90(2A) Town and Country Planning Act 1990 ("**TCPA 1990**") for the onshore element of the works.
4. As has been discussed at length, although this project will also require a Marine Licence ("**ML**") issued by Natural Resources Wales ("**NRW**") to proceed, that is not the subject of this inquiry.
5. The interaction between the Order, the deemed planning permission and the ML is considered below.
6. It is worth beginning by setting out the aims of the Morlais project. These are²:
 - (i) to create local high-quality jobs.
 - (ii) to mitigate the jobs lost by the closure of the Wylfa nuclear power plant and Hitachi's decision to pull out of the Wylfa Newydd 2700MW proposed nuclear power plant.

¹ Inquiry Doc – 102.

² See Mr. Billcliff's proof at para. 2.12.

- (iii) to maximise local skills, training, and job opportunities in the development, construction, and operational phases.
- (iv) to harness the opportunity for Anglesey and North Wales to become globally significant in the development and commercialisation of tidal stream energy generation technology.
- (v) to maximise community benefit from the project.
- (vi) to provide a source of low carbon electricity and contribute to meeting Wales's Net Zero Carbon 2050 target.
- (vii) To provide local ownership, in accordance with Welsh Government requirements.

Project overview

7. An overview of the project, science, and constraints behind it was given by Dr Orme on the afternoon of day 1. His evidence went entirely unchallenged³ – clarificatory questions were asked by yourself and the RSPB but nobody could or did take issue with any of the points that he raised.
8. What is sought by this Order is, in effect, the power to construct a 35km² offshore demonstration zone for tidal stream technology (the Morlais Demonstration Zone or “MDZ”), and the ancillary offshore and onshore infrastructure to take the electricity generated through for export to the national grid. We return to the detail of this project below, but before we do it is worth bearing in mind the following points about Menter Môn, tidal stream technology and the state of the industry.

Menter Môn

³ Evidence in chief of Dr Orme - Day 1, PM session 1 and 2.

9. This has been explored in the evidence of both Dr Orme⁴ and Mr Billcliff⁵. In summary, Menter Môn is a third sector not-for-profit company⁶ providing solutions to the challenges facing rural Wales, and seeking to add value to Welsh natural resources for the benefit of the community. Its primary objective is to provide long term secure jobs for the people of North West Wales⁷.
10. It has been involved in a number of community energy projects, including the hydro projects of Ynni Ogwen and Ynni Padarn Peris. It has also been involved in the conservation of the red squirrel, the restoration of 125 miles of coastal path, and publishing a book about the birds of Anglesey. Since 1996 it has attracted £70 million to Anglesey, and supported 5,000 businesses. It is very much embedded within the community, and holds dear the same landscape, ecological and economic values which have so galvanised the community around this application. If the Order is made, it would be this company which negotiates with developers on behalf the project throughout its life. It would be a prime example of community owned energy – indeed this has the potential to be the UK’s largest locally owned renewable energy project.⁸

Tidal stream energy

11. As Dr Orme has confirmed in evidence in chief,⁹ and outlined in his proof of evidence¹⁰ tidal stream technology converts energy from the ebbing and flowing of the tides into kinetic energy. As the tide ebbs and flows, in certain areas where channels or (as here) promontories and headlands constrict the area through which the tide can travel, water is forced through constricted features and accelerated. This gives streams of high velocity

⁴ Day 1, PM session 1.

⁵ MDZ/P8 Mr Billcliff proof of evidence, para. 2.11 and following.

⁶ Mr Billcliff’s proof records at para. 10.1.2 that it is “a 3rd sector company established in 1995 and based in Llangefni Anglesey, its aim is to deliver socio economic development projects and benefits in North West Wales. Menter Môn has a good reputation locally, within the Local Authority and within the Welsh Government for delivering these projects. The Menter Môn directors do not stand to benefit personally from the success of this project, there are no associated financial bonuses. The company has no shareholders to satisfy. Success will be measured by delivering employment, opportunities, wealth, and security to many families in the area. Its directors are bound and motivated by cultural and socio-economic aspirations, providing a sustainable future for local inhabitants, opportunities for young people, and a stable basis for the Welsh language and culture. Its primary objective is to provide long term secure jobs for the people of North West Wales.”

⁷ See above.

⁸ MDZ/P8 Mr Billcliff proof of evidence para 5.1.2, 5.1.3.

⁹ Evidence in chief of Dr Orme - Day 1, PM session 1 and 2.

¹⁰ MDZ/P10 Dr Orme proof of evidence, para 7.6.1ff.

current. Tidal Energy Converters (“TECs”) placed in the water are turned by the tidal stream, converting that energy into kinetic energy. This technology is particularly sensitive to the speed of the tides – it is the cube of the tidal stream’s velocity that determines the power output. So, for example, doubling the velocity of the tidal stream gives eight times the power output. To use a more modest example, a 20% increase in the velocity of the tidal stream leads to 73% more power generated.

State of the Industry

12. Tidal stream technology is still in its infancy. It, like wind, solar, and other tidal energy devices needs to come forward to help create the diverse portfolio of renewable energy sources required to meet the challenge of the climate emergency. Whenever a new technology emerges there are often a variety of designs that need to be explored before an industry discovers which is most effective, efficient, and deployable at scale. Wind first went through this process in the early 1970s.¹¹ Tidal stream technology has not yet had that chance. You will recall the illustrative variety of devices and designs that Dr Orme took you through, and the variety of surface-emergent, mid-water column and seabed mounted sub-surface devices. Even among the submerged devices, there is a mixture of those firmly fixed to the sea bed and those which, while moored to the seafloor, float under the water.¹² These devices do not just look different, but take advantages of different speeds present in different areas of the water column.¹³ They may also each have different costs and benefits. As was explored in the Character and Appearance roundtable (“RT”) , surface emergent devices, for example, are easier to access and maintain, take advantage of the engineering aphorism that “*chain is cheap*”, and may well have a lesser impact on the benthic ecology to those fixed to the seabed. Overall, there are some key design principles emerging, on matters such as maximum diameters of the turbines,¹⁴ but nobody yet knows which works best, or most efficiently.

¹¹ Currently, floating wind is going through the same, with demonstration sites being encouraged by the Scottish Government’s offshore wind policy statement.

¹² Evidence in chief of Dr Orme - Day 1, PM session 1 and 2 and MDZ/A25.4 Table 4-2, pp12-14 and see Plate 4-2, 4-3 and 4-4.

¹³ Evidence of Dr Orme at the Character and Appearance RT, Day 6 AM session 1.

¹⁴ Evidence in chief of Dr Orme - Day 1, PM session 1 and 2.

13. The industry, however, is keen to advance, and various technologies are at high readiness levels, with turbines deployed at sites in the Pentland Firth and Shetland Islands, with other prototype, pre-production and commercial devices deployed for extended periods at the European Marine Energy Centre (“EMEC”) in Orkney.¹⁵ Many of the device developers are “small players,” who struggle to meet big costs of development¹⁶ - indeed this inquiry has heard from a number of those small developers (both national and international) including Orbital Marine Power,¹⁷ Sabella,¹⁸ Aquantis,¹⁹ Instream,²⁰ Verdant Power²¹ and Magallanes.²² As will become particularly relevant to the discussion of character and appearance (encompassing seascape, landscape and visual issues), you will also recall that when developing a prototype the focus initially tends not to be so much on how they look, but whether they work. Once that fundamental question has been addressed, and developers then have to address deployment, the constraints of deployment areas get factored in. So, as here, if deployment is limited to areas of visual beauty, visual constraints will then get worked into the design process as a design driver.²³

Constraints

14. Evidently, this industry needs to develop. However, there are, for geographical reasons, only a limited number of places where such technology can be employed. Where such technology is currently deployed, it is usually with only a single device. There are a small handful of projects with arrays of multiple devices, but the numbers of devices are low. Nowhere in the world yet hosts a demonstration zone for multiple arrays. That creates a barrier to the development of the technology – as Dr Orme has outlined it prevents the economies of scale which can be used to drive down research and production costs.²⁴ The purpose of a demonstration zone like this is to fill that gap, providing a ‘plug and play’ system for various commercial developers to demonstrate their tidal array technologies

¹⁵ Mr Billcliff’s Proof of Evidence 5.1.2.

¹⁶ Dr Orme’s evidence in chief day 1.

¹⁷ Day 2 public Speaking Session 1 and MDZ/M4.

¹⁸ Day 2 public Speaking Session 2 and MDZ/M3.

¹⁹ MDZ/M1.

²⁰ MDZ/M2.

²¹ MDZ/M5.

²² MDZ/M6.

²³ Dr Orme evidence Day 6 AM Session 1.

²⁴ MDZ/P10 Dr Orme proof of evidence, para 7.7.1.

over a long-term period. However, in view of the nature of this technology and the state of this industry, any demonstration zone (and the MDZ is no exception), is subject to a number of constraints if it is going to achieve the substantial benefits that can come with it (see below).

15. First, there are geographical limitations. The physics underlying this project means that, unlike other sources of renewable energy (such as wind or solar), the areas where tidal stream devices can be deployed are relatively limited. Dr Orme in his evidence indicated that around the UK a number of areas have been considered by The Crown Estate but only three of them including the MDZ were found to be especially well-suited for the purpose of tidal stream demonstration zones²⁵. However, importantly the fixed costs of deploying a device are largely comparable, whether it is deployed in an area of high velocity or low velocity. In an industry which operates on fine margins, location is fundamental both to the viability of any project, and to ensuring that as much energy as possible is generated.²⁶ We will turn in more detail to the project itself below, but suffice to note for now that in 2016 Menter Môn explored with potential device developers what sort of flow speed they require – the average minimum flow speed required was stated by developers to be 2.48m/s mean spring peak velocity. As Dr Orme explained and as clearly shown in slide 11 and 12 of the presentation accompanying his evidence in chief²⁷, the areas of highest flow near the project area are adjacent to the coast and hence the need to deploy in these areas.

16. Second, the project must be able to deploy at scale. This is for three reasons:

- (i) It is only by deploying multiple devices that developers are able to benefit from economies of scale. Smaller projects in this context incur costs which are disproportionately larger than those of larger projects. Some fixed costs simply do not scale. An example was given of the costs of an operation team capable of servicing the devices. As Dr Orme explained,²⁸ economies of scale help drive down

²⁵ Inquiry Doc - 001 p. 9.

²⁶ Evidence in chief of Dr Orme - Day 1, PM session 1 and 2.

²⁷ Inquiry Doc - 001 pp11-12.

²⁸ Evidence in chief of Dr Orme - Day 1, PM session 1 and 2; MDZ/P10 Dr Orme proof of evidence, para 7.7.1.

research and production costs. This is essential in order to bring this technology to market. It is also important to note – and this arose from a question you asked – that although such economies may be greatest at the 240MW level, they still apply at a lower deployment as would be expected at Phase One. It is a sliding scale – designing and deploying six devices is cheaper (relatively) than designing and deploying one, designing and deploying 200 is cheaper still. As one developer put it to Dr Orme, a 2MW project is, relatively, 60% more expensive than a 12MW project.²⁹

- (ii) It is only by granting a consent for a scalable project (even one, as here, restricted in how it develops) that you provide a route to market for developers. You have heard this from not only Dr Orme,³⁰ but also from Andrew Scott (CEO of Orbital Marine Power) in a representation,³¹ and from Oliver Wragg, a commercial director at Orbital Marine Power who attended the public speaking session.³² Those who are investing in this technology need certainty and visibility that there will be somewhere to deploy it. Everyone accepts that this will not be a “free pass” – matters such as biodiversity concerns mean developers will of course have to accept that as more is learned about this technology the level of acceptable deployment will be kept under review – but the route must be there at least as a possibility, and de-risked as far as possible at an early stage by consenting up to 240MW.
- (iii) In many ways the bigger the deployment the bigger the benefits. These are discussed in more detail below, but more can be learned, more energy provided and more economic benefit given to the local community the more generating power the project has.

17. Third, the project must proceed on the basis of a Project Design Envelope or “PDE” (sometimes known as the “**Rochdale Envelope**”), for the examination and assessment of the environmental impacts on the project. This is necessitated by the early stage of the

²⁹ Evidence in chief of Dr Orme - Day 1, PM session 1 and 2.

³⁰ Evidence in chief of Dr Orme - Day 1, PM session 1 and 2.

³¹ MDZ/M4 Orbital Letter of Support.

³² Day 2, PM public speaking session.

industry, and the very nature of the MDZ in bringing various different technologies forward. It is not possible to say, at the consenting process, precisely which turbines will be used and in what quantities. So, an envelope of proposed worst case environmental parameters will have to be used, and the assessment of environmental effects undertaken on those. This is not unusual, and has been accepted as a valid approach in case law,³³ UK-wide national policy,³⁴ and government guidance. We come to the law in more detail below. The use of PDE for tidal energy projects is explicitly endorsed by Natural Resources Wales (“NRW”) – see its report *Defining project envelopes for marine energy projects: review and tidal energy test facility and marine mammals case study*³⁵. This states that:

“A PDE approach is a consenting approach that allows a project proponent to submit an assessment of the potential maximum impacts of a range of design parameters within its application. This is often required because at the time of consent application, the details of project design are not finalised. This allows the project proponent with the flexibility to build out a number of potential design options, as long as the project is constructed and operated within the range of parameters assessed”.

18. The use of a PDE is also endorsed in the *UK Wave and Tidal Demonstration Zones Workshop Report*³⁶ (a joint document produced by among others the Welsh Government, NRW and The Crown Estate), and PINS *Advice Note Nine: Rochdale Envelope*.³⁷
19. Fourth, because this project is so ground-breaking, there are some data gaps. Of particular (but not exclusive) interest in this project - there is limited information as to how tidal stream devices, and in particular multiple arrays of tidal stream devices, will interact with the local wildlife (particularly marine mammals and diving birds). These gaps need to be dealt with, through adaptive monitoring and management – something that is also endorsed in the above mentioned NRW publication. As we will outline more below, Menter Môn acknowledge this such that the whole project has been designed with this in mind. But it is important to note at the outset that it *is* a constraint, and would be a constraint on any project seeking to bring tidal stream arrays forward. Indeed, this is an inevitable consequence of trying to move forward the sum total of human knowledge.

³³ See *R v Rochdale MPB ex p. Milne* [2001] Env. LR 22, from which the phrase Rochdale Envelope is derived.

³⁴ See e.g. MDZ/D2 NPS EN-1 para 4.2.8 fn78, and MDZ/D3 EN-3 para 2.6.43 fn23.

³⁵ MDZ/F.15.

³⁶ MDZ/D13.

³⁷ MDZ/D14 paras 5.6 and 5.7.

The project: components

20. It is against that background and those constraints that we come to this project and how it has been developed. We will run through the geographical features of the project and how some points have been reached, before moving on to how it will be deployed. The parameters of the project are outlined in Chapter 4 of the Environmental Statement (“ES”).³⁸ See, in particular, Tables 4-21 to 4-30. You will recall that you considered these broad parameters identified to be satisfactory in terms of the description of the development for the purposes of the TWA Application and EIA Regulations.³⁹
21. The limitations of this project are reflected in the draft Order. Arts 3(1)-3(3) grant the undertaker the power to construct, maintain, repower and decommission the authorised works. However, in so doing, various documents (outlined in Part 4 of Schedule 1) have to be submitted to and approved by the Welsh Ministers:⁴⁰ Art 3(4). Any tidal works must then be constructed “in accordance with” those submitted documents: Art 3(6). Any operations must take place in accordance with any documents approved under Art 3(4): Art 5(2). The Art 3(4) documents are, therefore, key. In approving the content of those documents, the Welsh Ministers are specifically prohibited from authorising any works “outside the project parameters”: Art 3(4). The “Project Parameters” are what is set out in Tables 4-21 to 4-30 of the ES: Art 2(1).⁴¹
22. The MDZ as it is currently envisaged is described in paras. 4.1 and 4.2 of Dr Orme’s proof⁴²:
- “4.1 The Morlais Demonstration Zone (MDZ) covers an area of 35km² of seabed to the west of Holy Island, Anglesey, Wales. The area is shown in Figure 1.*
- 4.2 It is a total of c.8.3km north to south and at its widest point is 5.4km east to west. Following consultation, the eastern MDZ boundary has been designed to allow an inshore navigation channel which averages 1.9km in breadth between the coast and the nearest surface emergent tidal devices. At its narrowest points at South Stack and Penrhyn Mawr there are short sections where the breadth of this channel is limited to 1km. The MDZ boundary itself runs 500m closer to shore, with any tidal devices within this area constrained in size to allow a minimum under*

³⁸ MDZ/A25.4.

³⁹ PINS Assessment of Environmental Statement, 4 December 2019, para. 15, see MDZ/E10.

⁴⁰ Or NRW – see Art 3(7).

⁴¹ MDZ/A16.2, and see the amended draft Order at Inquiry Doc – 102.

⁴² MDZ/P10 para. 4.1-4.2.

*keel clearance of 8m (Restricted Area Blue). Similarly in the northern most part of the zone, around the west and also to the south, there is an area which allows for 20m of under keel clearance (Restricted Area Purple). In addition, in the area to the west and north of South Stack, no visually prominent devices are permitted (Restricted Area Gold)."*⁴³

23. This will require intra-array cables and up to 9 export cables with cable tails, relevant navigation and environmental monitoring equipment, and of course the energy generating hubs.⁴⁴
24. In terms of location, you will recall from Dr Orme's evidence both in his proof and orally⁴⁵ that it was The Crown Estate that developed the idea of Demonstration Zones, and sited the West Anglesey Demonstration Zone in 2013 following a review of key resource areas throughout the UK, consultation with stakeholders and its own Habitats Regulations assessment.⁴⁶ As Dr Orme outlined in evidence, 70% of all potential tidal demonstration zones in the UK are 500m or less from the coast. 83% are within 1,000m of it. In around 2015, the demonstration zone was moved further north, to where the MDZ currently lies, following higher definition flow modelling indicating that was a better area of tidal stream resource. Its current location covers the best area of tidal stream resource available.⁴⁷ It is also located within the North Anglesey Marine/Gogledd Môn Forol Special Area of Conservation ("SAC")⁴⁸, which is designated for the harbour porpoise. It is in the vicinity of the Pen Lyn, Cardigan Bay and Pembrokeshire Marine SACs, designated for bottlenose dolphin and grey seal. It is also located off the coast of the Anglesey AONB.⁴⁹ We return to the significance of all this below.
25. Nine subsea cables will then be drawn in from the MDZ to the mainland in an area known as the export cable corridor. The cables then make landfall at Abraham's Bosom. Again it should be noted that a significant proportion of the Anglesey coastline (and all of that portion near the MDZ) falls within the Glannau Ynys Gybi/Holy Island Coast Special

⁴³ While the location of the Morlais project has been driven by nature, and not by the existence of constraints nonetheless the restrictions imposed on deployment the MDZ are all designed to deal with these constraints.

⁴⁴ Dr Orme evidence in chief, Day 1, PM session 1.

⁴⁵ Dr Orme evidence in chief; Dr Orme Proof Of Evidence para 4.5 and following.

⁴⁶ Dr Orme evidence in chief.

⁴⁷ Dr Orme evidence in chief and see MDZ/P10 Fig 2 and MDZ/A27.2 Fig 5.6.

⁴⁸ See MDZ/P2 Fig 1.

⁴⁹ MDZ/P5 Image 2, p.13.

Protection Area (“SPA”), SAC and Site of Special Scientific Interest (“SSSI”).⁵⁰ It is hoped, and indeed expected, that the cables will be able to transfer from the sea to the mainland via horizontal directional drilling (“HDD”) – in short, a straight line tunnel being dug from the land (some 220m back from the cliff face)⁵¹ out to sea.⁵² In this way, it would completely bypass the cliff face and habitats concerned. Moreover, a condition to the deemed planning permission is now proposed requiring that Menter Môn demonstrate that HDD is not feasible before it uses any other method to achieve landfall.

26. In case that is not possible. Menter Môn has developed a fall-back – running those cables in J-tubes up the cliff face.⁵³ It should be noted (and as will be discussed in more detail below) that the footprint of this element of the project, if it is required, has already been substantially reduced, and that Abraham’s Bosom is one of the narrowest points of the Holy Island Coast SAC/SSSI and SPA that could have been chosen.
27. From there, the cables will travel to a landfall substation.⁵⁴ From the landfall substation, cabling will follow a route predominantly along already existing roads (South Stack Road, Porthdafarch Road, Lon Isallt and Mill Road), detouring into private land on relatively few occasions.⁵⁵ That cabling will pass under the existing A55 highway and rail line, to the Grid Connection Substation at the National Grid’s Penhros substation. This in turn will feature a 33KV supply to the Distribution Network Operator’s existing infrastructure at Park Cybi, and a 132KV connection to the National Grid. Part of the cabling route between the Landfall Substation and the Grid Connection substation will require a taking of privately owned land. The main objectors at the outset of the inquiry were Land and Lakes⁵⁶ and Orthios⁵⁷. Land and Lakes have, of course, now withdrawn their objection having reached agreement with Menter Môn.⁵⁸

⁵⁰ MDZ/P1 Fig 1; MDZ/P3 Fig 1.

⁵¹ In plot 5 of that same map – MDZ/A17.1.

⁵² beyond plot 1 in the TWAP Map1 Location Plan – MDZ/A17.1.

⁵³ A visualisation has been included in document RPE007, Rebuttal Proof of Evidence of Mr Myers, p.6.

⁵⁴ Plans at MDZ/P5 p.19 and visualisation at p.20.

⁵⁵ For the route maps see MDZ/P8 Fig 18 and MDZ/A17.1-MDZ/A17.9.

⁵⁶ Who own a large amount of land along the route.

⁵⁷ Who own land surrounding the National Grid’s Penhros substation – see further below.

⁵⁸ The formal withdrawal does not appear to have made it into the Core Documents. Pinsent Masons, on behalf of Land and Lakes, wrote to PINS on 11 December 2020. This letter is available on the PINS TWA Morlais website at <https://dns.planninginspectorate.gov.uk/projects/wales/twa-morlais-demonstration-zone/?ipcsection=docs>.

The project: deployment

28. Menter Môn is seeking permission to deploy up to 240MW. However, in light of the sensitive nature of the location, the remaining data gaps, and the inherent flexibility required by this PDE to accommodate devices of multiple types, it does not seek permission to deploy 240MW on day one. Instead, there are a number of limitations on what can be deployed, where and when. There are a plethora of plans and other documents that must be submitted to and approved by the Welsh Ministers or NRW prior to various stages, by virtue of Art 3(4), 3(7) and Part 4, Schedule 1 of the Order.⁵⁹ We do not go through them all here, but we wish to highlight four key restrictions.

29. First, Menter Môn proposes a phased approach to deployment, as part of an overarching Environmental Monitoring and Mitigation Plan (“**EMMP**”).⁶⁰ An outline EMMP has been prepared at this consent stage (“**Outline EMMP**” sometimes referred to as “**the OEMMP**”), a detailed EMMP (“**Detailed EMMP**” sometimes referred to as “**the DEMMP**”) is intended to follow the consent. This, as Mr Fortune explained, is to be a “living document” over the lifetime of the project, adapted, improved, and resubmitted to the Welsh Ministers every time the Morlais Project commences or repowers any tidal works.⁶¹ It is addressed in more detail below, but in sum includes the following stages:⁶²

- (i) Following the establishment of an advisory group, the Regulator (NRW) and the advisory group review the technology parameters of a proposed Phase One deployment against the consented PDE. If it falls within the consented PDE, then
- (ii) NRW must agree the level of deployment. If they do, then

⁵⁹ See Inquiry Doc - 102, Schedule 1 Part 4.

⁶⁰ See for a visualisation MDZ/A16.8, Inquiry Docs - 100 and 101 Plate 2-1.

⁶¹ Mr Fortune evidence in Cross examination, Day 13 AM Session 1; see Inquiry Doc - 102, Draft Order Schedule 1 part 4.

⁶² This is for deployment, there are a number of other safeguards for monitoring and mitigating environmental impacts in real time.

- (iii) The advisory group and Menter Môn identify the parameters of the Phase One deployment to be monitored, any mitigation to be deployed, and prepares a Detailed EMMP. It is then presented to NRW for approval. If NRW approves, then
- (iv) Phase One (and any mitigation) can be deployed and demonstrated.⁶³ Thereafter,
- (v) Phase One is monitored. After a period, the advisory group and NRW will review the significance of the EMMP outputs. If there is uncertainty about the potential for significant impacts, they continue to monitor. If there is the potential for significant impacts, array scale mitigation is deployed. Only after it is concluded that there are no significant effects can Menter Môn look toward Phase Two – and the process repeats.

30. At each stage, deployment is limited by reference to the tightest of the ecological parameters imposed by NRW. At the initial phase, any deployment has to be such that the collision risk comes under the threshold 0.7 bottlenose dolphins per year. That is going to lead to a relatively small scale deployment in the order about 12 MW likely between 5 – 10 devices, but it could be more (c. 21) if very much smaller devices are deployed⁶⁴.

31. Pausing there, Sir, there are two points you asked us to be clear on for your note. The first is the relationship between phasing and adaptive management in the EMMP. The “phasing” is as outlined in paras. 37-40 of the Outline EMMP. It is the “Deploy a small phase, monitor, manage, deploy another” type approach we just outlined. The phasing is constrained by the ecological parameters imposed by NRW. “Adaptive management” is the iterative process whereby uncertainty is progressively reduced through monitoring and data study, and there is real time monitoring and deployment of mitigations. It is described more fully in paras. 41-49 of the Outline EMMP. So, the two obviously interact, because it is only through knowledge gained from adaptive management that one gains greater clarity on where the allowable parameters of the next phase are.

⁶³ You’ll recall from Mr Fortune’s evidence on Day 13, AM session 1 that some of the stages in the OEMMP are likely to run side by side.

⁶⁴ See MDZ/ A31.13, Table 3-3 and 3-4.

32. The second query you raised was about the extent to which this phasing and adaptive management approach is a risk to the full deployment of the Morlais project. For the reasons we will explore in more detail when it comes to the ecology section below, we do not believe it is. We are certain, and you've heard from leading experts on this, that our assessments are highly precautionary, and predict, far far worse results than will actually eventuate. We are also firmly of the view that the mechanisms and technologies put in place within the EMMP can both be proven to work and will safeguard the local ecology. But the key point for yourself and the Welsh Ministers is that any residual risk remains on the project – it is not a risk that something may be placed into the sea which would cause a greater environmental harm than they assess at this stage.
33. Second, even when there is full deployment there are a number of restricted areas which limit what devices Menter Môn can deploy where.⁶⁵
34. Third, prior to the construction, repowering or decommissioning of any tidal work, an updated navigational risk assessment (“**NRA**”) must be submitted and approved by the Welsh Ministers.⁶⁶ Thus, although this is a PDE approach, and although (as we will turn to below) concerns have been expressed about particular devices, a detailed device and array specific NRA will be undertaken before each deployment to ensure navigational safety. Nothing is going to go into the water without Welsh Ministers or NRW signing it off first.
35. Fourth, a Device Deployment Protocol (the “**DDP**”) must be submitted and approved by the Welsh Ministers⁶⁷ prior to every single deployment of a surface emergent device, or one with less than 8m or 20m under-keel clearances (“**UKC**”) in the restricted areas. This will require among other things an updated landscape, seascape and visual impact assessment to be undertaken. It must also be consistent with the updated NRA for each deployment.
36. Each of these documents must, as we outlined a moment ago, fall within the project parameters of the ES.

⁶⁵ MDZ/A28.1, and Inquiry Doc – 102, Order Schedule 1 Part 3.

⁶⁶ Or NRW by virtue of Art 3(7) of the Order.

⁶⁷ Or NRW by virtue of Art 3(7).

37. As we have said this is just a flavour of some of the checks in place, but what it does show is, notwithstanding the fact that we have adopted a PDE approach, there are device specific checks and balances at each and every stage to allow further consideration to be given to the effects on ecology, landscape, and navigation.

The project: benefits

38. Against that background, we come to the significant benefits of the Morlais project. Mr Bell has outlined them both in his proof of evidence⁶⁸ and orally⁶⁹ during this inquiry. This evidence, like Dr Orme's, went entirely without challenge. You will also recall that a number of the benefits of this project were repeated by those who came to give evidence at the public speaking session on day 2 of the inquiry. On a personal level, it is the first time either of our careers that we have ever had more public speakers speaking in favour of a proposal, than against it.

39. First and foremost, it will contribute to combatting climate change through the generation of renewable energy. This has been a theme of both Mr Bell's evidence and a benefit recognised by the public speakers⁷⁰ - even those opposed to this project.⁷¹ There are two points we wish to draw out:

- (i) It fills a gap in the renewable energy portfolio. Because of the nature of tidal stream energy, it is predictable. There are, as Dr Orme confirmed in evidence in chief,⁷² four predictable peaks of energy - every day, every month, and every year. That, combined with the clever use of batteries, has the potential to create a constant base load supply of energy. This is almost unique in the renewable energy industry. Wind or solar energy, for example, are intermittent - they may have large

⁶⁸ MDZ/P9 Mr Bell proof of evidence, para. 7.1 and following.

⁶⁹ Day 1 PM sessions 1 and 2.

⁷⁰ See e.g. the evidence of Mr McHugh, Mr Jones, Ms Hooper, Mr Ap-Rhisiart and Ms Simes, Day 2 PM public speaking session.

⁷¹ See e.g. the opening statement of Snowdonia Canoe Club and Canoe Wales p.5 (Inquiry Doc - 010), Opening Statement of RSPB para. 9 (Inquiry Doc - 008), the evidence of Mr Green for Whale and Dolphin Conservation Trust in the public speaking session (Day 2 PM public speaking session). You will recall that Mr Maurici asked in the navigation RT (Day 10, AM session 2) if any disagreed with that proposition, and none did.

⁷² Evidence in chief of Dr Orme - Day 1, PM session 1 and 2.

gaps in their supply on days the wind does not blow or the sun does not shine. To fill those gaps, fossil fuels must be kept online. Tidal Stream energy provides a renewable way to fill that gap.

- (ii) It has the capacity to generate up to 240MW of clean, renewable, energy. As Mr Bell explained, that could provide enough electricity to power 188,000 homes – more than Anglesey, Gwynedd and Conwy combined.⁷³

40. Second, it will help the tidal stream sector to advance, with the attendant wider benefits in the fight against climate change that this provides. Again, this is a benefit you have heard from Mr Bell,⁷⁴ from the developers who have written in support of the application,⁷⁵ and from those who spoke in the public session in support of this development.⁷⁶ Key concerns to which Mr Bell urges you to have regard are outlined in para 7.1.3 of his proof. Those are:

- (i) The ability to bring the technology to a market ready position as soon as possible;
- (ii) The potential to further develop a local industrial and supply chain strategy and to service the UK and European markets;
- (iii) The importance of having visibility of deploying marine devices at scale and that the MDZ provides this opportunity;
- (iv) That early consent of site deployment will help prove both the technical performance and the environmental acceptance of technology and there is a unique opportunity to test operation of arrays and devices in multiple rows and columns;
- (v) The benefits of deployment at scale which can lead to accelerated learning in relation to the fields of power off-take, materials/structures, optimised operations and maintenance: all with a view to reducing costs to a competitive level. By

⁷³ MDZ/P9 Mr Bell proof of evidence, para. 7.1.2.

⁷⁴ MDZ/P9 Mr Bell Proof of Evidence para 7.1.3.

⁷⁵ MDZ/M1-MDZ/Z6.

⁷⁶ See e.g. the evidence of Mr Wragg, Mr Ap-Rhisiart, Ms Moutel, Ms Simes, Ms Kynaston.

deploying sufficient capacity, it can help achieve cost reductions necessary so that tidal energy can compete with more established forms of renewable energy generation;

- (vi) Without the scale of deployment of Morlais it will be challenging to model whole array interactions and progress with plans for larger deployment - which may mean that the economic and clean energy opportunities that the UK is uniquely positioned to secure will be missed. This includes opportunities to service the global tidal energy market.
- (vii) That all of the above can lead to the unlocking of further investment.

41. We re-emphasise, however, that all of this can be done in a highly controlled and managed way that will avoid the risk of adverse impacts on biodiversity.

42. Third, there are significant benefits to be obtained, both for economic growth more generally and for the local community. Of course, Menter Môn is a not-for-profit social enterprise, which has a key objective of providing solutions to the varied challenges facing rural Wales. The benefits extracted by Menter Môn from this development will be returned to the local community. Again, key points to which we would urge you to have regard:

- (i) Job creation, including of highly skilled jobs. As Mr Bell confirmed in evidence, it is expected that this will generate up to 467 jobs per year during construction, and up to 456 jobs per year arising from operation and maintenance. Of these, approximately 137-228 could be in Anglesey, 91 in North Wales and 46⁷⁷ across the rest of Wales.⁷⁸ You also heard the first hand testimony from Ms Kynaston, Ms Simes and Ms Hooper regarding how the provision of marine energy jobs enabled them to either return to, or remain in, local communities otherwise suffering from “brain drain”.⁷⁹ The same would be a benefit here.

⁷⁷ See the socio-economic section below for discussion of the agreement reached with the IoACC on how to secure maximum local employment and supply chain opportunities.

⁷⁸ MDZ/P9 Mr Bell Proof of Evidence para 7.1.6.

⁷⁹ Day 2, PM Public speaking session.

- (ii) The utilisation of the local workforce and supply chain – to which Menter Môn is committed. Menter Môn has shown that the local spend of the proposed development may add somewhere between 0.4% and 4% to the annual economic activity of Anglesey.⁸⁰ That on its own is a significant amount, and a great headline. But look past that – at the human element of what that means in practice. It means using local contractors, and businesses. Not just for the “here and now” but over the long-term life of this project. And giving those businesses the incentive to take on staff, school leavers, and college graduates. You heard from Dr Jones how the businesses in this area, skilled up in anticipation of a Wylfa that will now never come, have the skills and equipment needed by developers at the MDZ.⁸¹ You heard from Mr Ap-Rhisiart how local companies are willing, able, and excited to take advantage of the opportunities this offers.⁸² You also heard from Mr Gleeson, a representative of Verdant Isles (a developer waiting in the wings to deploy at the MDZ), three pertinent points: first the local supply chain is particularly important because transporting large devices can be difficult, second how impressed Verdant Isles has been with some of the local business which it has *already* contacted, and third the prospect of ancillary businesses arriving to accommodate this, such as battery storage sites and data centres. Morlais, he considered, would be a pathfinder.⁸³ We would ask you to recall the evidence Mr Jones-Griffith, principal of Coleg Menai and Coleg Meirion-Dwyfor, who has supported this project precisely because of the opportunities it will afford to young people – both through the immediate project and beyond – for apprenticeships, training, and skill development. Real skills, real opportunities, real long term jobs, for the young people who are going to bear the brunt of this climate crisis.
- (iii) As Chapter 25 of the ES records,⁸⁴ it is anticipated that Anglesey could expect to benefit directly from local spend as a consequence of the project between £3.2m and £41.4m annually for the life of the project. The benefits to the North Wales region are expected to be between £2m and £25m annually for the life of the project,

⁸⁰ MDZ/P9 Mr Bell Proof of Evidence para 7.1.6.

⁸¹ Day 5, PM session 1. He highlighted one company which has already won such a contract.

⁸² Socio-economic RT, Day 5, AM session 1.

⁸³ Socio-economic RT, Day 5, AM session 1.

⁸⁴ MDZ/P9 Mr Bell Proof of Evidence, para 7.1.6. and MDZ/A25.25.

with the rest of Wales seeing potential benefits of £14.5m to £33m annually. although not a point put forward by Mr Bell you also heard from Mr Ap-Rhisiart of the benefits brought to Anglesey by being less reliant on the tourism sector. Now to be clear we don't think the tourism sector will suffer, but there is certainly, Mr Ap-Rhisiart submitted, a benefit in having a more diverse stream of inward investment into the Island.⁸⁵

43. All of these benefits, you will recall, were reiterated by Mr Henry Aron, of the North Wales Economic Ambition Board.⁸⁶

44. As Mr Bell has noted,⁸⁷ the importance of these economic benefits cannot be underestimated in today's circumstances. This last year has seen the biggest collapse in economic activity and shock to the economy since records began, according to the Office of Budget Responsibility. As we'll come to, over 10% of Anglesey's workforce is involved in the tourism sector – an area badly hurt by the lockdown policies. The Committee on Climate Change ("CCC") has given advice to the UK Government that there is a consistent economic and environmental imperative to deliver projects contributing to both the economic recovery and climate emergency. It is hard to think of a project better placed to do that than the Morlais project.

45. Against the background of those benefits it is no surprise that there is already significant political support for the project. There is support in the North Wales Growth Deal, in WEFO funding, it was mentioned in the First Minister of Wales' opening address at the 2019 Marine Energy Wales conference, and there have been various meetings between Menter Môn representatives and the Government. This is all recounted in the proof of Mr Billcliff.⁸⁸

Legal principles

⁸⁵ Socio-economic RT, Day 5, AM session 1.

⁸⁶ Socio-economic RT, Day 5 AM session 2.

⁸⁷ MDZ/P9 Mr Bell Proof of Evidence para 7.1.7; and evidence in chief Day 1.

⁸⁸ MDZ/P8 Mr Billcliff's Proof of Evidence para 5.1.1.

46. So that is the background to the project. Before we turn to the main matters in issue we are going to outline some of the key legal principles governing the decision that the Welsh Ministers will have to make. The main legal issues are:

- (i) The regulatory regimes in issue and the relationship between them;
- (ii) The Ministers' obligations under the various pieces of environmental legislation;
- (iii) Utilisation of a PDE and what the legal requirements are;
- (iv) The extent to which the Ministers can rely on other regulatory regimes, bearing in mind (i), (ii) and (iii) above.

47. Some consideration of these principles also features in Chapter 2 of the ES.⁸⁹

The regulatory regimes

48. Menter Môn has addressed the various regulatory regimes covering this project in Eversheds Sutherland note of 23 November 2020,⁹⁰ from which we borrow extensively in the next few paragraphs⁹¹.

49. This project will require consenting under three different regimes:

- (i) The Order, applied for pursuant to the TWA;
- (ii) A planning permission under the Town and Country Planning Act 1990 ("TCPA"), deemed to be granted by provisions under the TWA; and

⁸⁹ MDZ/A25.2.

⁹⁰ RPE0008.

⁹¹ The note though needs to be read in full. It is a thorough and comprehensive analysis of the position that was warmly welcomed, and agreed with, by Counsel for NRW. Most other parties opposed to the Morlais project have made no comment on the note. The RSPB (see below) limited its comment to two paragraphs only – paras. 21 - 23 – it seemingly being the case that the remainder of the note was undisputed by RSPB.

- (iii) A ML, required by the Marine and Coastal Access Act 2009 (“MCAA”).

50. The application before this inquiry concerns the first two. Broadly, the TWA sets out procedures for authorising the construction and operation of certain transport projects (such as railways or works which interfere with navigation rights) that formerly required statutory approval under the Private Bill procedure in Parliament. The Private Bill procedure was required because the construction of such projects almost inevitably interferes with the rights of private citizens – compulsory purchase may be the only practical way of acquiring the necessary land, a new marina might interfere with navigation rights, and the operation of a project such as a railway might leave the operator liable to a nuisance claim. Without some sort of legislative attenuation of those rights, individuals might be able to prevent a project taking place. The Private Bill procedure allowed the attenuation of those rights, and the grant of various ancillary rights to (for example) undertake works on streets. The TWA allows all that to be done via a Transport and Works Act Order. See further the *Encyclopaedia of Planning Law and Practice* at para 2-3372.

51. However, where something is to be built it is not enough to attenuate others’ private rights. Two statutory regimes also exist to control development – a terrestrial development requires a planning permission under the TCPA, a development in the water requires a ML under the MCAA. In the case of *R. (Powell) v Marine Management Organisation* [2017] EWHC 1491 (Admin) the Court held at para. 82 that (emphases added)

“Just as planning control is concerned with factors relating to the use of land (Stringer v Minister of Housing and Local Government [1970] 1 WLR 1281, 1294), marine licensing is concerned with use of the sea. Those uses are not limited to navigation, nor is the focus on rights of navigation. Amenity uses and development in the form of mineral extraction are examples of legitimate uses of the sea. Given that section 69(1)⁹² is relevant to whether or not an application for a marine licence should be granted, it can be seen that “legitimate” is not used simply to refer to a lawful use or to legal rights, but in a broader sense to describe justified, proper or acceptable uses. Thus, “legitimate” allows the MMO to evaluate the merits of a use or of competing uses, including existing uses. Accordingly, the MMO can decide how much weight or merit to give to a proposal to use an area of sea for temporary development such as mineral extraction, or for permanent development such as residential or commercial buildings, as compared with the extent to which practical use is made of that area for navigation or indeed other “legitimate uses”. For example, in the present case it is plain from the evidence received

⁹² This provides “In determining an application for a marine licence (including the terms on which it is to be granted and what conditions, if any, are to be attached to it), the appropriate licensing authority must have regard to – (a) the need to protect the environment, (b) the need to protect human health, (c) the need to prevent interference with legitimate uses of the sea, and such other matters as the authority thinks relevant.”

by the MMO that the spending beach and area of sea affected by the phase 2 works are used for only very limited navigation purposes and relatively infrequently."

52. Section 90(2A) of the TCPA allows the Welsh Ministers to make a direction deeming that planning permission be granted for the onshore works (subject to conditions set out in the direction) alongside the making of the Order. There is no equivalent provision for a ML, which therefore always requires a separate application and approval – in Wales the approval function has been delegated to NRW by the Welsh Ministers.⁹³
53. There are, of course, differences between these regimes. We do not need to undertake a comprehensive assessment of that now, but suffice to note for present purposes that in many ways the two development control regimes under the TCPA 1990 and MCA 2009 are more flexible than an order granted under the TWA. Conditions on a planning permission⁹⁴ or ML⁹⁵ can be varied under the TCPA 1990 or MCAA 2009, albeit only on application being made and approval granted. Amendments to a ML are not infrequently required, and there are many examples of this. There is no provision to vary a TWAO – any application for that would require an entirely new application and inquiry. This is one way in which the TWAO regime is more limiting than the regime contained in the Planning Act 2008 for nationally significant infrastructure projects. There does not appear to be any justification for this, but it is important given this, that matters which do not need to be included in the TWAO are not, so as to allow for variation applications.
54. Notwithstanding the fact that there are three different regimes required here, for the two in which the Welsh Ministers will have to make a decision (the TWAO and the deemed planning permission), there is a large amount of overlap in the considerations that they will have to take into account in deciding whether to make the TWAO and grant the planning permission. Welsh PINS documents *Applications for Orders under the Transport & Works Act 1992* (Sept 2019) notes that the DfT's *A Guide to TWA Procedures* (2006) remains relevant and provides detailed guidance on TWAOs. That notes, *inter alia*, that where (as here) a planning direction has been sought, as a matter of policy the consideration of the planning permits would be part of the consideration of whether to authorise the scheme (para. 1.4), and that in any case relevant planning policy is a matter to which is to be had

⁹³ Art 3 Marine Licensing (Delegation of Functions) (Wales) Order 2013 (SI 2013/414, W.50)

⁹⁴ S. 73 TCPA 1990.

⁹⁵ S. 72 MCAA 2009.

regard (para 1.28). Planning considerations are therefore going to be an important part of the Welsh Ministers decision when deciding both the TWAO and Deemed Planning Permission, notwithstanding the two may be considered conceptually separate. This is not the time to rehearse the entire corpus of planning law but a matter has repeatedly arisen throughout the inquiry, which is how a public perception of harm should be taken into account. We refer you to the relevant section of the *Planning Encyclopaedia* at para 70.39, which summarises the law.⁹⁶ We submit, broadly:

- (i) That public opposition *per se* is not a material consideration. However, the fact that fears and concerns are held by members of the public may constitute a material consideration if
 - a. They relate to a matter which is a material consideration;
 - b. They are objectively justified; or
 - c. Even if baseless, they may have land use consequences.
- (ii) Whether such fears and concerns must be dismissed if shown to be baseless is less clear, as there is a split in Court of Appeal authority. Even if, however, it is not an automatic dismissal questions of what risks exist, are acceptable, and are weighty enough to justify a departure from the local plan are all matters for the decision maker.

55. So those are the three broad regimes in issue here. As we have noted the regimes and how they will crossover in this particular case was outlined in more detail in the Eversheds Sutherland Note, which as we have said was not very controversial (save for the limited points made by the RSPB, to which we turn later). You should also note there is a government steer toward the controls imposed by various regimes being complementary,

⁹⁶ This matter came up during Day 10, AM Session 1, when we were the only lawyers “in the room”. You mentioned, Sir, that you could ask Mr Maurici QC to “step away from” his client and “into the middle of the room” and advise the inquiry. That is not quite right, as Mr Maurici QC made clear during the hearing. We owe a duty to any tribunal to ensure that it is not misled. This includes drawing the Tribunal’s attention to any decision or provision adverse to the interests of our client, which is particularly important when appearing against unrepresented parties (gC5). So, it is not the case that we can step away from our client and “advise” the Tribunal, but we do have to make sure it has all relevant legal materials in front of it. Mindful of that obligation we have enclosed the full extract of the *Planning Encyclopaedia* (Inquiry Doc -138) dealing with public perception of harm as, in our view, this gives a comprehensive and fair account.

rather than duplicating or conflicting with one another.⁹⁷ Menter Môn was given the same steer by NRW in this case – see para. 32 of its statement of case⁹⁸ which states that “NRW will argue that any overlap in the requirements of the TWAO, the planning permission and the marine licence should be avoided, wherever possible, to avoid duplication and confusion.”

Environmental obligations

56. As you will know, many of the environmental obligations biting on this project are derived from EU law. Over the course of this inquiry, we have ended the “*implementation period*” provided for by the European Union (Withdrawal) Act 2018 (“**Withdrawal Act 2018**”)⁹⁹. Ss. 2-3 of the Withdrawal Act 2018, as amended, provides that direct EU legislation, and EU-derived domestic legislation, continue to have effect in domestic law after that day. Very broadly, the interpretation of any retained EU law is to be the same as it was before that day, insofar as the retained EU law remains unmodified in UK law and regulations have not been promulgated providing otherwise (s. 6(3) of the Withdrawal Act 2018). We will refer below primarily to the relevant UK and Welsh regulations which still have effect, and the old EU directives and CJEU case law, as those remain an aid to interpretation save insofar as we will direct you otherwise..

57. The Ministers have obligations under s. 13A-C TWA, rules 7, 11 and Schedule 1 of the Transport and Works (Applications and Objections Procedure) (England and Wales)

⁹⁷ See e.g. MDZ/D1 Planning Policy Wales at paras 1.20 (“*The planning system should not be used to secure objectives which are more appropriately achieved under 10 11 other legislation. The aim should be to maintain the principle of non-duplication, wherever possible, even where powers and duties resulting from other legislation may also be the concern of local authorities. This does not mean failing to address issues which the planning system should be properly concerned with. In practice issues will often overlap and in such circumstances the planning system will have a preventative and early role to play and is capable of both avoiding the creation of problems and securing multiple benefits through positive and proactive planning approaches. Where appropriate it will be advantageous to address issues in parallel. The grant of planning permission does not remove the need to obtain any consent that may be necessary, nor does it imply that such consents will be forthcoming, and similarly, the granting of other consents should not be used to justify the granting of planning permission*”) and 5.13.3 (“*Planning authorities, other relevant local authority departments and Natural Resources Wales (NRW) must work closely together to ensure that conditions attached to planning permissions and those attached to Environmental Permits are complementary and do not duplicate one another. Sufficient information should accompany development proposals in order for planning authorities to be satisfied that proposals are capable of effective regulation. NRW should assist the planning authority in establishing this position through the provision of appropriate advice. The parallel tracking of planning and environmental permitting applications should be the preferred approach, particularly where proposals are complex, so as to assist in mitigating delays, refusal of applications or conditions which may duplicate the permit/licence*”).

⁹⁸ MDZ/N9.

⁹⁹ As amended by the European Union (Withdrawal) Act 2020.

Rules 2006 (SI 2006/1466) (the “**2006 Regulations**”), and the Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017 (SI 2017/567) (the “**2017 Regulations**”)^{100,101} to ensure that the project undertakes a sufficient Environmental Impact Assessment (“**EIA**”). This, of course, stems originally from the EU’s EIA Directive¹⁰². We do not propose to go into great detail about this now as we do not think that is required, but highlight three key points:

- (i) EIA is intended to be an aid to efficient and inclusive decision-making in special cases, not an obstacle race for developers: *R (Jones) v Mansfield DC* [2004] Env LR 21, per Carnwath LJ (as he then was) at para. 58. There is no requirement for an ES to contain every scrap of environmental information: *R (Blewett) v Derbyshire CC* [2003] EWHC 2775 at para. 68. Otherwise, as was noted in *R v Rochdale MBC ex p. Milne (No. 2)* [2001] Env LR 22 at para. 113, an ES would become so voluminous that both the public and local planning authority would lose the wood for the trees. Moreover, in *Blewett* at para. 41 Sullivan J said:

“As Lord Hoffmann said in R. v North Yorkshire CC Ex p. Brown [2000] 1 A.C. 397, at p.404, the purpose is “to ensure that planning decisions which may affect the environment are made on the basis of full information”. In an imperfect world it is an unrealistic counsel of perfection to expect that an applicant’s environmental statement will always contain the “full information” about the environmental impact of a project. The Regulations are not based upon such an unrealistic expectation. They recognise that an environmental statement may well be deficient, and make provision through the publicity and consultation processes for any deficiencies to be identified so that the resulting “environmental information” provides the local planning authority with as full a picture as possible ...”.

So what is to be taken into account is not just the ES but all the “*environmental information*”, see e.g. the 2017 Regulations which at reg. 2 define this as meaning

¹⁰⁰ You may query whether the 2017 Regulations apply given the fact that the 2006 Regulations also require an Environmental Statement to be submitted. We consider so. The 2017 Regulations prevent a planning permission or subsequent consent for EIA development being granted unless an EIA has been undertaken. “Planning Permission” has the same meaning as in the TCPA 1990, which means “planning permission granted under Part III” of that Act (s. 336 TCPA 1990). Part III includes s. 90 deemed planning permission. S. 90(2A) of course is the basis on which a deemed planning permission is sought. In any case, this is more a matter for formality than anything, given that this is already a requirement under the 2006 Regulations.

¹⁰¹ Sir you may be aware that there are also the Conservation of Offshore Marine Habitats and Species Regulations 2017/1013. For the avoidance of any doubt these do not apply to the current application. They do not apply to the UK’s territorial sea. The Territorial sea is, broadly, 12 nautical miles from shore: s. 1(1) Territorial Sea Act 1987. The MDZ is within that.

¹⁰² Directive 2011/92/EU as amended by Directive 2014/52/EU.

“the environmental statement, including any further information and any other information, any representations made by any consultee and any representations duly made by any other person about the environmental effects of the development” (emphasis added). See too the definition of “EIA Information” in s. 13A(3) TWA. So, it is not correct, as the RYA and SCC seem to think, that an objector can point to some alleged deficiency in the baseline information presented in the ES and that this, even if it is accepted to be a deficiency, invalidates the process. It is open to objectors, and indeed incumbent on them, not just to point out alleged deficiencies but to submit their own information on such matters. Not every gap in information is tantamount to a legal error; that would be a ridiculous suggestion. Regrettably, much time (and also public resources) was wasted by the RYA and the SCC pursuing palpably bad points such as these in relation to the socio-economic impacts.

- (ii) Whether an ES contains sufficient information on which the decision maker (here, the Welsh Ministers) may rely in making their decision, is reviewable only on *Wednesbury* grounds: *Atkinson v Secretary of State for Transport* [2006] EWHC 995 (Admin) at para. 31, *R (Friends of the Earth Ltd) v Heathrow Airport Ltd* [2020] UKSC 52 at para. 142-143. In this regard we would note that the ES was subject to a full scoping process with PINS prior to submission¹⁰³. Following submission of the ES this was subject to detailed assessment,¹⁰⁴ with further environmental information submitted. There are no outstanding requests for further environmental information from PINS in this TWAO. The ML application also went through detailed scoping and it will be recalled that the position is that all environmental information submitted in the ML process has also been submitted to this inquiry.
- (iii) It is well recognised that an ES is limited to what can be achieved on the current state of knowledge. This should be obvious, and has been recognised in legislation (see, e.g. reg. 11(2)(b) of the 2006 Regulations, reg. 17(4)(d) 2017 Regulations) and in case law (see e.g. *Preston New Road Action Group v Secretary of State for Communities and Local Government* [2018] Env LR 18, para. 67). The Divisional

¹⁰³ MDZ/A8.

¹⁰⁴ MDZ/E10 and MSZ/E11.

Court in *Spurrier v SST* [2019] EWHC 1070 (Admin)¹⁰⁵ at para 417 in considering the provisions of both the EIA and SEA Directives in this regard said that in terms of what must be included “a judgment is involved as to “the information that may reasonably be required”, taking into account current knowledge, assessment methods, the contents and level of detail in the plan, its stage in the decision-making process and whether matters are more appropriately assessed in other procedures”. The issue in this litigation was, whether at the plan stage (the adoption of the Airports NPS supporting a third runway at Heathrow) more detailed assessment was required of noise. The authors of the assessment that accompanied the NPS used indicative flight paths¹⁰⁶ because the patterns of air traffic movement likely to be created by the use of a new runway were at that stage uncertain and it was not possible to base the assessment of likely noise impacts on definite flight paths. The claimants argued that using only one set of indicative flight paths, as the assessment had done, was not enough. This argument was rejected by the Divisional Court and by the Court of Appeal¹⁰⁷: see paras. 168. 170 and 173 – 175 of the Court of Appeal’s judgment^{108,109}. This rejection was on the basis that when the ANPS was being prepared, the siting,

¹⁰⁵ Upheld on this point by the Court of Appeal in *Plan B v SST* [2020] P.T.S.R. 1446, and not the subject of appeal to the Supreme Court albeit that there is further endorsement of this approach in the judgment of the Supreme Court see *R. (Friends of the Earth Ltd) v Heathrow Airport Ltd* [2020] UKSC 52 para. 144-145.

¹⁰⁶ Para 167.

¹⁰⁷ *Ibid.*

¹⁰⁸ “174 Mr Fleming submitted that if paragraph (c) of Annex 1 is read, as it should be, in the light of the precautionary principle and the aim of the SEA Directive to ensure that communities likely to be affected by a plan or programme are consulted and given an early and effective opportunity to comment, it is necessary to avoid underestimating the area over which flights may occur. Using only one set of indicative flight paths, as the Secretary of State did here, was not enough. It was probable that many people significantly affected by noise would not be under those flight paths. It was true that in the Divisional Court the Hillingdon claimants had not argued for the use of “actual flight paths” in the Appraisal of Sustainability (see para 473 of the judgment). But in the absence of precise flight paths, the Secretary of State ought to have used areas instead, not indicative flight paths. Mr Fleming relied on the approach indicated in Advocate General Kokott’s opinion in *D’Oultremont v Région Wallonne* (Case C-290/15) EU:C:2016:561 , points 37–45.

175. We cannot accept those submissions. In our opinion, there was nothing amiss in the Secretary of State’s use of indicative flight paths. It was neither irrational nor in any other way unlawful. As Mr Maurici argued, it was understandable, for at least three reasons. First, when the ANPS was being prepared, the siting, dimensions and design of the new runway were not yet final. Secondly, the assessment of noise impacts in the Appraisal of Sustainability had to be undertaken before the separate statutory process for airspace change was conducted, and its outcome known. And thirdly, the approach adopted by the Secretary of State corresponded to that of the Airports Commission when comparing the three airport expansion schemes in its final report in July 2015.” (emphases added).

¹⁰⁹ This part of the Court of Appeal’s judgment was not subject to appeal to the Supreme Court and so is unaffected by that decision: [2020] UKSC 52, the Supreme Court in fact endorsed this aspect of the Court of Appeal’s analysis in considering the other grounds before it.

dimensions and design of the new runway were not yet final and hence it was reasonable to use indicative flightpaths only, and indeed only one set of those.

58. Although the ML application is not before this inquiry for determination, it should be noted that where works require a ML, the EIA Directive has been implemented into national legislation by the Marine Works (Environmental Impact Assessment) Regulations 2007 (SI 2007/1518) as amended.
59. The second broad branch of environmental legislation and regulation impacting this project is that concerned with the protection of habitats, birds and species. At EU level, this stemmed from the Habitats Directive¹¹⁰ and the Wild Birds Directive.¹¹¹ The key piece of legislation is the Conservation of Habitats and Species Regulations 2017 (SI 2017/1012) (the “**Habitats Regulations**”), as amended.¹¹² This is not the time for a thorough legislative review. Broadly, as you will be aware, the Habitats Regulations require sites to be selected and designated as European Sites.¹¹³ This is done by reference to which natural habitat types listed in Annex I of the Habitats Directive, and which species listed in Annex II of the Habitats Directive, the site hosts (Regs. 12-19 Habitats Regulations).
60. Once designated, controls exist on the approval of plans and projects that might have an adverse effect on the integrity of a European Site (Part 6, Regs. 61-113 Habitats Regulations). Reg. 63 requires an appropriate assessment to be undertaken for consents etc. prior to that consent being given, if the plan or project is likely to have an adverse effect on the integrity of a European Site “in view of” that site’s conservation objectives (Reg. 63(1)). An authority cannot grant permission if the project would adversely affect the integrity of the European Site (in shorthand, whether it would have an adverse effect on site integrity or (“AEOSI”). In considering whether there is AEOSI, the competent authority must have regard to the manner in which it is proposed the project be carried out, or any conditions or restrictions subject to which it proposes the authorisation be granted – that is to say any proposed mitigation. If there is found to be an AEOSI notwithstanding any proposed mitigation, reg. 64 allows the project to continue in certain circumstances of overriding public interest . (For clarity we do not rely on reg. 64 here, but

¹¹⁰ MDZ/B5 EC Directive 92/43/EEC (as amended).

¹¹¹ MDZ/B8 EC Directive 2009/147/EC (as amended).

¹¹² Conservation of Habitats and Species (Amendment)(EU Exit) Regulations 2019/579 MDZ/B10.

¹¹³ Although the regulations only protect European sites.

mention it as it is relevant to a matter between us and NRW). Regs. 63 and 64 transposed Arts. 6(3) and (4) of the Habitats Directive. There is under these provisions a clear difference in law between mitigation and compensation measures. Mitigation measures (i.e., those which “lessen the negative effect of a plan or project, with the aim of ensuring, if possible, that... the ‘integrity of the site’ is not as such adversely affected”) may be taken into account in determining whether there is AEOSI under reg. 63. In contrast compensation measures (i.e., one that “does not achieve that goal within the narrower framework of the plan or project itself but seeks to counterbalance the failure to do so through different, positive effects with a view to, at the very least, avoiding a net negative effect”) may only be considered under reg. 64: see *Briels v Minister van Infrastructuur en Milieu* [2014] PTSR 1120, per Advocate-General Sharpston at para. 36.

61. It is worth being clear on what is required of an appropriate assessment under Reg. 63 Habitats Regulations. Lord Carnwath in *R (Champion) v North Norfolk District Council* [2015] UKSC 52 said at para. 41:

"‘Appropriate’ is not a technical term. It indicates no more than that the assessment should be appropriate to the task in hand: that task being to satisfy the responsible authority that the project ‘will not adversely affect the integrity of the site concerned’ taking account of matters set in the article. As the court itself indicated in Waddenzee, the context implies a high standard of investigation. ... the issue ultimately rests on the judgment of the authority. ... no special procedure is prescribed, and, while a high standard of investigation is demanded, the issue ultimately rests on the judgment of the authority."

62. In terms of what it must address, it must (a) catalogue the entirety of habitat types and species for which a site is protected, (b) identify and examine the implications of the project for the species present on that site, and those species present for which the site has not been listed, and the implications for habitat types and species outside the boundaries of the site insofar as those implications are liable to affect the conservation objectives of the site, and (c) where the competent authority rejects the findings in a scientific expert opinion recommending additional information be obtained, include an explicit and detailed statement of reasons capable of dispelling all reasonable scientific doubt concerning the effects of the work envisaged on the site concerned. See the judgment of the CJEU in *Holohan v An Bord Pleanala (C-461/17)* [2019] Env L.R. 16, para. 37 and following. It should also be based on the “best scientific knowledge in the field”.

63. However, in terms of what level of certainty must be shown, there is no requirement for absolute certainty. The case-law makes clear that the removal of all scientific uncertainty is not necessary in order for an appropriate assessment to be completed: see *Landelijke Vereniging tot Behoud van de Waddenzee and Another v Staatssecretaris Van Landbouw, Natuurbeheer en Visserij* [2005] 2 C.M.L.R. 31 per the Advocate-General at para. 107. Some of the CJEU case-law talks of the need to have complete precise and definitive findings and conclusions capable of removing all reasonable scientific doubt as to the effect of the proposed works on the protected site concerned. The English and Welsh courts though have made clear that

“absolute certainty that there would be no adverse effects was not required; a competent authority could be certain that there would be no adverse effects even though, objectively, absolute certainty was not proved; R (Champion) v North Norfolk District Council [2015] UKSC 52 at [41], and Smyth v Secretary of State for Communities and Local Government [2015] EWCA Civ 174 at [78]”

(per Sir Duncan Ouseley Sitting as a High Court Judge in *Compton v Guildford BC* [2019] EWHC 3242 (Admin) at para. 207).

64. The differences between EIA and Habitats obligations was explored by Sullivan LJ in *R (An Taisce (National Trust for Ireland)) v Secretary of State for Energy and Climate Change* [2015] PTSR 189, at para. 16:

“While the text of art.2(1) of the EIA Directive and art.6(3) of the Habitats Directive is essentially similar, and both Directives are concerned with environmental protection, there is in my view a clear distinction between the two Directives. The scope of the EIA Directive is wide-ranging, it ensures that any project which is likely to have significant effects on the environment is subject to a process of environmental impact assessment. The EIA Directive does not prescribe what decision must be taken by the competent authority to permit or to refuse if the environmental impact assessment concludes that the proposal is likely to have significant effects on the environment. The Habitats Directive is more focused, it protects particular areas of Community importance, which have been defined as “special areas of conservation”, and which must be maintained at, or restored to, “favourable conservation status”: see articles 2 and 3. In order to achieve this aim art.6(3) provides that, subject only to “imperative reasons of overriding public interest” (see art.6(4)), where there has been an “appropriate assessment”: the competent authorities shall agree to the plan or project only after having ascertained that it will not adversely affect the integrity of the site concerned.” (emphasis added)

65. In that case, he continued to consider what “likely” means having regard to both the EIA Directive and the Habitats Directive (now of course the relevant regulations). We highlight the following points:

- (i) Under the Habitats Directive, a project must have an appropriate assessment undertaken if it is “likely” to have a significant effect on a protected site (art. 6(3) Habitats Directive, equivalent to reg. 63(1) Habitats Regulations). It is ‘likely’ if it cannot be excluded. (para. 14). Now that applies at the ‘screening’ stage of the Habitats Regulations – we are obviously past that, as a Habitats Regulations Assessment has been undertaken, and so the concern below and what the Welsh Ministers have to address is whether it will or will not have AEOSI (reg. 63(5) Habitats Regulations). We flag the “likely” point here, not because we are relying on it, but because it is a helpful contrast with “likely” under the EIA Directive.
- (ii) Under the EIA Directive, for a Schedule 2 Development one must assess both whether the effect is “likely” to occur, and then whether it would be “significant” (see e.g. Art 1(1), and 2(1) EIA Directive, Reg. 3 and the definition of “EIA development” in Reg 2 of the 2017 Regulations). “Likely” here connotes a “real risk”, not simply that something is more likely than not (see paras. 12, 23). So, for example, that case concerned the construction of a nuclear reactor at Hinkley Point in Somerset. The Defendant did not carry out a transboundary consultation required by Art. 7 of the directive because, although the risks of (say) a meltdown were significant, they were not “likely”. The Court of Appeal upheld that approach in *An Taisce*.

66. It is important to note that in respect of the ornithology issues RSPB’s case is focussed on impacts – which Menter Môn says will be minor adverse – on two species of bird: the breeding guillemot and razorbill populations from the South Stack and Penlas colonies. These are **not** birds that are features of any relevant European site. The evidence clearly shows no impact on the Manx shearwater populations relevant to nearby SPAs. Nor is any issue on impact on SPA though pursued.

67. Of course, when dealing with wildlife, dolphins and other cetaceans are also protected under other legislation¹¹⁴. The Welsh Government has particular responsibilities with respect to Sites of Special Scientific Interest (“SSSIs”) under s. 28G of the 1981 Act. An authority to which this section applies has the duty “...to take reasonable steps, consistent

¹¹⁴ See MDZ/P2 Dr Learmonth’s Proof of Evidence paras. 4.9 – 4.12.

with the proper exercise of the authority's functions, to further the conservation and enhancement of the flora, fauna or geological or physiographical features by reason of which the site is of special scientific interest". We flag here the key species of concern to the RSPB at this inquiry, namely guillemot and razorbill, are associated with the Glannau Ynys Gybi / Holy Island Coast SSSI but neither species are identified as interest features for the site's designation and the populations of these species at this site are not part of, or associated with, SPAs¹¹⁵. There is thus here no prohibition on granting consent (e.g. like that under reg. 63/ art. 6(3)) whatever the impacts on these species, these are though, of course, material considerations.

Project Design Envelope

68. As we have already noted, the nature of a demonstration zone requires permission to be sought for a PDE. It is well recognised that seeking a planning permission for an outline consent can be reconciled with the need to undertake EIA. This was set down by Sullivan J in *Milne (No. 2)*. He acknowledged at paras. 89-90 that, where a project is to evolve over a period of years, there is no reason why a "description of the project" should not recognise that fact, provided it takes full account of the implications for the environment of this need for flexibility – it is for the relevant authority to decide whether the difficulties and uncertainty is not acceptable in terms of its potential effect on the environment.¹¹⁶ The level of information required is that which is sufficient to enable the main or likely

¹¹⁵ See MDZ/P1 Dr Grant's Proof of Evidence at para. 4.4.

¹¹⁶ The full passage reads:

"89. Since the "description of the project" required by Article 5(2) is a means to that end, in that it provides the starting point for the assessment process, there is no reason to believe that the directive was seeking to be unduly prescriptive as to what would amount to an appropriate description of a particular project. The requirement in Article 5(2) (see page 89C to E) to provide "information on the site, design and size of the project" is, and is intended to be, sufficiently flexible to accommodate the particular characteristics of the different types of project listed in annexes I and II (Schedules 1 and 2 to the assessment regulations). It may be possible to provide more or less information on site, design and size, depending on the nature of the project to be assessed.

90. If a particular kind of project, such as an industrial estate development project (or perhaps an urban development project) is, by its very nature, not fixed at the outset, but is expected to evolve over a number of years depending on market demand, there is no reason why "a description of the project" for the purposes of the directive should not recognise that reality. What is important is that the environmental assessment process should then take full account at the outset of the implications for the environment of this need for an element of flexibility. The assessment process may well be easier in the case of projects which are "fixed" in every detail from the outset, but the difficulty of assessing projects which do require a degree of flexibility is not a reason for frustrating their implementation. It is for the authority responsible for granting the development consent (in England the local planning authority or the Secretary of State) to decide whether the difficulties and uncertainties are such that the proposed degree of flexibility is not acceptable in terms of its potential effect on the environment."

significant effects to be assessed and the mitigation measures described.¹¹⁷ In *Milne* (No. 2), the environmental statement had considered the worst environmental impacts that could arise from the project. Sullivan J held this was entirely acceptable.¹¹⁸ The important points are that the application (1) acknowledges the need for details to evolve over a number of years within clearly defined parameters, (2) the environmental assessment takes account of that need and reflects the likely significant effects of such a project in the environmental statement, and (3) the authority imposes conditions to ensure the process of evolution keeps within the parameters applied for and assessed.

69. Although of course we are not here dealing with an outline consent in the way one would think of an “outline” planning permission, this same approach is applied large infrastructure projects where the details will evolve over time and cannot be fixed at the time of consent. The PINS Guidance note on *Rochdale*¹¹⁹ while focussed on the 2008 Act is also relevant here. It explains:

“1.2 The ‘Rochdale Envelope’ approach is employed where the nature of the Proposed Development means that some details of the whole project have not been confirmed (for instance the precise dimensions of structures) when the application is submitted and flexibility is sought to address uncertainty. Such an approach has been used under other consenting regimes (the Town and Country Planning Act 1990 and the Electricity Act 1989) where an application has been made at a time when the details of a project have not been resolved¹²⁰.”

1.3 The need for flexibility is identified in a number of National Policy Statements (NPS) which suggest the Rochdale Envelope as an approach to address uncertainties inherent to the Proposed Development ...”.

70. NPS EN-1 explains¹²¹ that “[t]he “Rochdale Envelope” is a series of maximum extents of a project for which the significant effects are established. The detailed design of the project can then vary

¹¹⁷ See para 104: “If one asks the question “how much information about the site, design, size or scale of the development is required to fall within ‘a description of the development proposed’ for the purposes of paragraph 2(a)?”, the answer must be: sufficient information to enable “the main”, or the “likely significant” effects on the environment to be assessed under paragraphs 2(b) and (c), and the mitigation measures to be described under paragraph 2(d).”

¹¹⁸ See para. 122: “Both the directive and the regulations recognise the uncertainties in assessing the likely significant effects, particularly of the major projects, which may take many years to come to fruition. The assessment may conclude that a particular effect may fall within a fairly wide range. In assessing the “likely” effects, it is entirely consistent with the objectives of the directive to adopt a cautious “worst case” approach. Such an approach will then feed through into the mitigation measures envisaged under paragraph 2(c). It is important that they should be adequate to deal with the worst case, in order to optimise the effects of the development on the environment”.

¹¹⁹ MDZ/D14.

¹²⁰ It may also be used in the TWA context.

¹²¹ MDZ/D2, Fn 78.

within this 'envelope' without rendering the ES inadequate". NPS EN-3¹²² similarly says in the context of wind (but the same is a fortiori with tidal given how nascent it is) that "wind farm operators are unlikely to know precisely which turbines will be procured for the site until some time after any consent has been granted".

71. It says that where flexibility is sought and the precise details are not known, then "the applicant should assess the effects the project could have... to ensure that the project as it may be constructed has been properly assessed (the **Rochdale** Envelope). In this way the maximum adverse case scenario will be assessed and the IPC should allow for this uncertainty in its consideration of the application and consent". The **Rochdale** envelope is explained to be "a series of maximum extents of a project for which the significant effects are established. The detailed design of the project can then vary within this 'envelope' without rendering the ES inadequate"¹²³.

72. As already noted above the use of the **Rochdale** envelope/ a PDE is also explicitly endorsed in the UK Wave and Tidal Demonstration Zones Workshop Report¹²⁴ - a joint document produced by among others the Welsh Government, NRW and The Crown Estate. It says that its key findings include:

" Use of the Rochdale Envelope

☐ *The use of a project design envelope or Rochdale Envelope is common in applications for wave and tidal stream projects.*

☐ *The use of a well-defined design envelope which clearly distinguishes information relevant to different technologies and different project components allows flexibility to accommodate future developments and different technical parameters.*

☐ *If the envelope is not used robustly it can bring risks into the consents process and also in delivering projects on site post-consent.*

☐ *The understanding of the history of the envelope and the full implications of its use is variable and project descriptions in environmental impact assessments (EIAs) reflect this.*

☐ *The word 'Rochdale' has little relevance to marine projects and workshop participants considered that 'project design envelope' was more suitable terminology to use. At present the terms are used interchangeably.*

☐ *Project design envelopes have been used in other sectors and experience from these could benefit the wave and tidal stream industry."*

73. We submit that a PDE approach is equally acceptable under the Habitats Regulations. What it is that the authority must assess may be different and use different thresholds (as outlined above), but there is nothing inimical to the Habitats Regulations in seeking to

¹²² MDZ/D3.

¹²³ Fn 23.

¹²⁴ MDZ/D13.

assess the worst-case parameters of a project in a PDE format. To hold otherwise would kill any developments near European Sites that may need to evolve over time. And this is a view explicitly supported by NRW in this particular context in *Defining project envelopes for marine energy projects: review and tidal energy test facility and marine mammals case study*¹²⁵: see above.

Reliance on other consenting regimes

74. Where consent is required for a development under more than one regime it has long been recognised that the decision may assume a subsequent regulatory authority will act with competence. In *Milne (No. 2)* Sullivan J said at para. 128:

“128. Any major development project will be subject to a number of detailed controls, not all of them included within the planning permission. Emissions to air, discharges into water, disposal of the waste produced by the project, will all be subject to controls under legislation dealing with environmental protection. In assessing the likely significant environmental effects of a project the authors of the environmental statement and the local planning authority are entitled to rely on the operation of those controls with a reasonable degree of competence on the part of the responsible authority: see, for example, the assumptions made in respect of construction impacts, above. The same approach should be adopted to the local planning authority's power to approve reserved matters. Mistakes may occur in any system of detailed controls, but one is identifying and mitigating the “likely significant effects”, not every conceivable effect, however minor or unlikely, of a major project.”

75. This was then considered by *Smith v Secretary of State for the Environment, Transport and the Regions* [2003] Env LR 32, [33]:

“33. In my view it is a further important principle that when consideration is being given to the impact on the environment in the context of a planning decision, it is permissible for the decision maker to contemplate the likely decisions that others will take in relation to details where those others have the interests of the environment as one of their objectives. The decision maker is not however entitled to leave the assessment of likely impact to a future occasion simply because he contemplates that the future decision maker will act competently. Constraints must be placed on the planning permission within which future details can be worked out, and the decision maker must form a view about the likely details and their impact on the environment.” (emphasis added).

76. *R (Hereford Waste Watchers Ltd) v Herefordshire CC* [2005] Env LR 29, Elias J said:

“34. I would therefore summarise the material principles in play here, as derived from Smith and Gillespie and the decisions to which they refer, as follows:

¹²⁵ MDZ/F.15.

1. The decision whether a process or activity has significant environmental effects is a matter for the judgment of the planning authority. In making that judgment it must have sufficient details of the nature of the development, of its impact on the environment and of any mitigating measures.
2. Equally, it is for the planning authority to decide whether it has sufficient information to enable it to make the relevant judgment. It need not have all available material provided it is satisfied that it has sufficient to enable a clear decision to be reached.
3. In making that determination, the planning authority can have regard to the mitigating measures provided that they are sufficiently specific, they are available and there is no real doubt about their effectiveness. However, the more sophisticated the mitigating measures and the more controversy there is about their efficacy, the more difficult it will be for the authority to reach a decision that the effects are not likely to be significant.
4. If the authority is left uncertain as to the effects, so that it is not sure whether they may be significant or not, it should either seek further information from the developer before reaching a conclusion, or if an ES has already been provided it should require a supplement to the ES which provides the necessary data and information. It cannot seek to regulate any future potential difficulties merely by the imposition of conditions.
5. The authority cannot dispense with the need for further information on the basis that it is not sure whether or not there are significant environmental effects, but that even if there are, other enforcement agencies will ensure that steps are taken to prevent improper pollution. However, it should assume that other agencies will act competently and it should not therefore anticipate problems or difficulties on the basis that those agencies may not do so."

77. This was reiterated in *Atkinson v Secretary of State for Transport*. That concerned a TWAO granted for the construction of a tunnel. Following the inquiry, the Secretary of State relied, in part, that the excavation, treatment and disposal of materials could be carried out within prejudicing public health and safety, accepting the view of the Environment Agency that the statutory procedures for regulating these activities, taken with the proposed planning conditions relating to waste management, were sufficient. It could not be identified at that stage exactly which landfall sites and haulage routes could be used. We draw your attention to paragraphs 25 and following, which relate to reliance on subsequent procedures when granting permission under a TWAO. It considers both *Smith* and *Rochdale*. We draw your attention in particular to para. 29, which is in similar terms to that which we have already cited in *Hereford Waste Watchers Ltd*:

"29. The position, therefore, as I understand it, is this. The decision maker must make his decision in the light of an environmental statement that describes the likely significant effects of the project and the measures to be taken to avoid, reduce or remedy any significant adverse effects. In determining whether the statement does provide the necessary description he is not entitled, in relation to a particular area of potential impact, to take the view, simply because subsequent consent from some other responsible body will be required, that no consideration needs to be given as to whether there are likely to be significant effects in that area or what they will be or what mitigation measures are needed. What he is entitled to do, however, is to reach the conclusion, on the basis of such information as he has that is of relevance to the particular area of potential impact, and in the light of the need for subsequent consent from the other responsible body, that the effects in that area are unlikely to be significant or that appropriate mitigation measures will be taken. He must, that is to say, have some information before him

that, when coupled with the need for subsequent consent, enables him to conclude that the effects will not be significant or that appropriate mitigation measures will be taken. As Sullivan J put it in Milne (at para 114) in relation to reserved matters in a planning permission:

"The local planning authority are entitled to say, 'We have sufficient information about the design of this project to enable us to assess its likely significant effects on the environment. We do not require details of the reserved matters because we are satisfied that such details, provided they are sufficiently controlled by condition, are not likely to have any significant effect.'"

30. For the Secretary of State to have relied as he did on the need for subsequent approvals to be obtained would only have been unlawful, in my judgment, if he had had no information before him that, when coupled with the need for such approvals, was capable of enabling him to reach the decision that he did. The question thus comes down to the adequacy of the information."

78. While we are here, it is also worth noting to what it is that NRW Regulatory will have to have regard in deciding whether to grant a ML. S. 69(1) MCAA 2009 provides:

"(1) In determining an application for a marine licence (including the terms on which it is to be granted and what conditions, if any, are to be attached to it), the appropriate licensing authority must have regard to –

(a) the need to protect the environment,

(b) the need to protect human health,

(c) the need to prevent interference with legitimate uses of the sea,

and such other matters as the authority thinks relevant."

79. Exactly what obligations this imports on NRW was recently considered in *Powell* (see above) at paras. 80 and following. So, environmental considerations will be at the forefront of NRW's mind.

Conclusion

80. Sir that has been a somewhat lengthier exposition of the legal principles than one would usually make in closing submissions. However, it is hoped that both for yourself, the Welsh Ministers, and those attending this hearing it has served to illuminate the principles underlying some of the key points of dispute. It is against that background that we turn to the main matters you have identified.

Main matters

1. The policy and legislative background to the proposal

81. Sir as you will recall there are two principal issues under this heading – the policy and legislative background to this proposal, and the relationship between the various regulatory regimes. We take each in turn.

Policy and legislative support for the proposal

82. An essential reading list was provided in section 1.4 of Mr Bell's proof of evidence.¹²⁶ His evidence on the policy support for this project is outlined in detail there, was discussed in his oral evidence and, as already noted, went entirely unchallenged despite being tendered for cross examination. He has updated this with two notes as further policy support has emerged in the course of the inquiry¹²⁷. You can, therefore, safely rely on his conclusions that there is strong policy support for this project.

(i) The Climate Change and Energy Policy Background

83. There are, unsurprisingly, international, European, UK and Welsh policy imperatives to reduce climate change. As Mr Bell says at para 4.1.2 of his proof of evidence, "*there is unequivocal, clear and consistent policy support at all levels, from international to local, for the deployment of renewable energy generally to combat global heating, diversify the mix of energy sources, achieve greater security of supply, and to attain legally binding renewable energy and emission reduction targets.*" Internationally, we direct you to all of the materials set out in Mr Bell's proof, but particularly the Paris Agreement (12 December 2015) which provides the imperative for parties to reach global peaking of greenhouse gas emissions as soon as possible. This Agreement now feeds through into the UK and Welsh Government's legislative targets for 2050.

84. Targets at the European level are outlined in para 4.2.9ff of Mr Bell's proof. Again, we refer all references to you but particularly highlight the 2018 Renewable Energy Directive, which establishes a binding renewable energy target for the EU for 2030 of at least 32% of energy generation from renewables. For the UK, the obligations include for 15% of all

¹²⁶ MDZ/P9.

¹²⁷ Inquiry Docs - 014 and 046.

energy consumed in the UK to come from renewable sources by 2020. Based on the latest (July 2020) statistics from the UK Government, the current position is that the UK is well short of that target as at the end of 2019 – a mere 12.3%. Although these are European targets, you will of course be aware, as explained above, that the Withdrawal Act 2018 converts EU laws, rules and targets into domestic UK law. These targets cannot, therefore, be avoided.

85. Turning to the UK policy position, this is outlined in section 4.3 of Mr Bell’s proof. All we do here is highlight some key points:

- (i) The CCC’s landmark report on “Net Zero” was published in May 2019, recommending the UK reach the net zero target by 2050, and recommending a target for Wales of a 95% reduction in greenhouse gas emissions by 2050. This, it was said, would deliver on the obligations made under the Paris Agreement.
- (ii) Shortly thereafter, the UK amended the Climate Change Act 2008, which now requires a 100% reduction of greenhouse gas emissions by 2050.
- (iii) More recently, the CCC’s Annual report to the UK Parliament (June 2020)¹²⁸ provided advice to the UK Government on securing a green and resilient recovery following the COVID-19 pandemic. We would particularly like to highlight the following section, extracted from the Executive Summary:

“Choices in the coming months must steer a recovery that drives vital new economic activity, accelerates our transition to Net Zero and strengthens our resilience to the impacts of climate change. UK domestic climate ambition can be the basis for UK international leadership in 2021, in the Presidency of the delayed UN climate summit in Glasgow (COP26) and in the G7 Presidency. It is 12 months since Net Zero became law, requiring the UK to reduce net emissions of greenhouse gases to zero by 2050. Initial steps towards a net-zero policy package have been taken, but this was not the year of policy progress that the Committee called for in 2019.

Net Zero has been adopted as a key goal of the Governmentbut we are not making adequate progress in preparing for climate change. The delay of COP26 to November 2021 provides a window to address this policy deficit and establish a credible internationally-leading position”¹²⁹

¹²⁸ MDZ/D8.

¹²⁹ Ibid p. 13.

To achieve success, net-zero emissions and improved climate resilience are integral to the COVID-19 recovery. There are new economic and social pressures, but climate investment can help create jobs and stimulate the economic recovery, while changing the course of UK emissions and improving our resilience to climate change for the coming decade and beyond:

“the economic recovery from [COVID-19] gives the UK a chance to grow back in a way that is fit for the low-carbon future to which it aspires, and that can benefit from the industrial and economic developments that this future offers.”¹³⁰

- (iv) The UK Government’s unambiguous position, in its response to the CCC progress report,¹³¹ is that meeting net zero emissions will require reductions in emissions across the economy on a scale not previously seen. The Executive Summary states:

“under any feasible scenario, meeting net zero will require reductions in emissions across the economy on a scale not previously seen; ambitious and early deployment of existing technologies and approaches; and innovation in new technologies... will enable us to offset emissions from sectors which cannot fully decarbonise”.¹³² The government’s objective is to “deliver emissions reductions at a rate which...maximises the economic opportunities for the UK, both from domestic deployment of clean technologies as well as through realizing export opportunities in what promise to be large and growing international markets in low carbon technologies and services”¹³³

- (v) Since the inquiry opened more matters occurred, which Mr Bell considered are material to this section: the National Audit Office Report on *Achieving Net Zero* (2020); the Government’s new target of a 68% reduction in greenhouse gas emissions on 1990 levels by 2030; the new energy White Paper; the sixth CCC Carbon Budget; the CCC document *The path to Net Zero and reducing emissions in Wales*; the UK Government’s announcement of the North Wales Growth Deal; and the Hornsea Three Offshore Windfarm DCO. Mr Bell considered these further supported his conclusions, has submitted two notes¹³⁴ to this effect, and we commend that view to you.

86. Turning to Welsh Government energy policy, again we suggest you read in full section 4.4 of Mr Bell’s proof, where he references key statutory and policy provisions including

¹³⁰ Ibid p. 16.

¹³¹ MDZ/D50.

¹³² Ibid p. 7.

¹³³ Ibid p.7.

¹³⁴ Inquiry Docs – 014, 046.

the Well-Being of Future Generations (Wales) Act 2015¹³⁵ (the “**2015 Act**”), the Environment (Wales) Act 2016¹³⁶ (the “**2016 Act**”) and *Prosperity for All, A Low Carbon Wales* (2019).¹³⁷

87. The Well-Being of Future Generations act followed, you will recall, an extensive consultation period known as the National Conversation. S. 3(1) of the 2015 Act requires public bodies to carry out “sustainable development”, which is defined in s. 2 as “*the process of improving the economic, social, environmental and cultural well-being of Wales by taking action, in accordance with the sustainable development principle (see section 5), aimed at achieving the well-being goals (see section 4).*” S. 5(1) incorporates the well-known definition of sustainable development as acting “*in a manner which seeks to ensure that the needs of the present are met without compromising the ability of future generations to meet their own needs.*” S. 4 outlines the seven well-being goals, and we extract the most relevant six below:

<i>A prosperous Wales.</i>	<i>An innovative, productive and low carbon society which recognises the limits of the global environment and therefore uses resources efficiently and proportionately (including acting on climate change); and which develops a skilled and well-educated population in an economy which generates wealth and provides employment opportunities, allowing people to take advantage of the wealth generated through securing decent work.</i>
<i>A resilient Wales.</i>	<i>A nation which maintains and enhances a biodiverse natural environment with healthy functioning ecosystems that support social, economic and ecological resilience and the capacity to adapt to change (for example climate change). [...]</i>
<i>A healthier Wales.</i>	<i>A society in which people’s physical and mental well-being is maximised and in which choices and behaviours that benefit future health are understood.</i>
<i>A more equal Wales.</i>	<i>A society that enables people to fulfil their potential no matter what their background or circumstances (including their socio economic background and circumstances).</i>
<i>A Wales of cohesive communities.</i>	<i>Attractive, viable, safe and well-connected communities. [...]</i>

¹³⁵ MDZ/B15 Well-being of Future Generations Act 2015.

¹³⁶ MDZ/B6 Environment (Wales) Act 2016.

¹³⁷ MDZ/J3 Prosperity for All: A Low Carbon Wales (2019).

A globally responsible Wales.	A nation which, when doing anything to improve the economic, social, environmental and cultural well-being of Wales, takes account of whether doing such a thing may make a positive contribution to global well-being.
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88. The 2016 Act sets in place an obligation on the Welsh Government to reduce greenhouse gas emissions by 80% against 1990 levels by 2050. As Mr Bell outlines,¹³⁸ there are regulations in progress to move this target toward the CCC recommendation to achieve a 95% reduction in greenhouse gas emissions by 2050, but it is acknowledged these are not yet in place. The commitments by the Government, however, are both there and clear.

89. It is against this strong policy backdrop that you must also view the import of the climate emergency. The Welsh Government declared a climate emergency on 29 April 2019¹³⁹:

"I believe we have the determination and ingenuity in Wales to deliver a low carbon economy.....we hope that the Declaration by Welsh Government today can help to trigger a wave of action¹⁴⁰ at home and internationally. Tackling climate change is not an issue which can be left to individuals or to the free market. Our sustainable development and environmental legislations is already recognised as world leading and now we must use that legislation to set a new pace of change."

90. Of course, the effects of climate change are not just limited to a hotter planet. There is a link between the climate emergency and an upcoming ecological emergency, as Mr Bell outlined in evidence in chief. Climate change is causing harm to ecosystems and species – something recognised in the draft National Development Framework (to which we return below),¹⁴¹ and Overarching Energy National Policy Statement ("NPS") EN-1.¹⁴²

91. Bringing that all together, it is the unchallenged view of Mr Bell¹⁴³ that energy policy from the local to the international level shows there is an urgent need and driving policy imperative for more renewable energy capacity. This was recognised as urgent in 2011 when the National Policy Statements were published. That need is even greater now. Mr Bell does not assert, and we do not argue, that this matter overrides all other

¹³⁸ MDZ/P9 Mr Bell Proof of Evidence para 4.4.9; and see MDZ/D12.

¹³⁹ MDZ/D11.

¹⁴⁰ No pun intended.

¹⁴¹ MDZ/P9 Mr Bell Proof of Evidence para 5.4.27.

¹⁴² MDZ/D2 para 5.3.6; see DB Proof of Evidence para 6.3.3.

¹⁴³ MDZ/P9 Mr Bell Proof of Evidence, section 4.5.

considerations. However, it is one to be afforded significant weight by you in your report, and by the Welsh Ministers.^{144,145}

(ii) Planning Policy

92. The other suite of policies that bear on this application are the local and national planning policies. There are many of these, and although we attempt to condense them down here, again we would suggest you read chapter 5 and section 6.2 of Mr Bell's proof in full. Again, his evidence on this point was entirely unchallenged.

93. Beginning with UK-wide planning policy, the suite of NPSs, in particular the Overarching NPS for Energy EN-1¹⁴⁶ and NPS for Renewable Energy EN-3¹⁴⁷ are material considerations. Although the Energy White paper has announced a review of these, it makes clear these remain in force until that is concluded.¹⁴⁸ These were devised for energy generating stations and energy infrastructure of this scale, and although the policy provision date is 2011 the documents are nevertheless important and relevant, and may be helpfully employed as a framework for assessment. In particular, NPS EN-3 section 2.6 (which relates to offshore windfarms) is analogous. Although tidal stream technology has progressed since NPS EN-3 was written, policy imperatives to accept that flexibility is required in the consent, basing an assessment on the maximum adverse case scenario and allowing for uncertainty in consideration (see e.g. para 2.6.42 of EN-3) are particularly relevant here.

94. Also of direct relevance, both at the UK-wide and Welsh levels are the UK and Welsh National Marine Plans. The Welsh National Marine Plan (2019) ("**WNMP**")¹⁴⁹ is the most

¹⁴⁴ Some examples of where great weight has been given to this consideration by Welsh Ministers in previous decisions, see MDZ/P9 Mr Bell Proof of Evidence at paras. 4.5.6 and following.

¹⁴⁵ A query has been raised by the North Wales Wildlife Trust in their Statement of Case (MDZ/N11) regarding the energy cost of this project as compared to, say wind. For the avoidance of doubt the policy imperative is for renewable technologies – encouragement of renewable energy development is an important component of national renewables policy. Whether there might be more effective ways of tackling climate change is a matter for such policy – it is not for consideration on the context of the determination of this application. See MDZ/P9 Mr Bell's Proof of Evidence at 4.5.4ff.

¹⁴⁶ MDZ/D2.

¹⁴⁷ MDZ/D3.

¹⁴⁸ Inquiry Doc – 048 p. 55.

¹⁴⁹ MDZ/D5.

up to date. We also refer you Planning Policy Wales (2018) (“PPW”),¹⁵⁰ also relatively up to date, having been published in 2018. Some key points that we would pull out for you of the WNMP:

- (i) Para. 20, which expresses the longstanding principle that *“any decision with the potential to affect the plan area, including those related to terrestrial activities, should be taken in accordance with this plan unless relevant considerations indicate otherwise.”*
- (ii) The WNMP identifies a number of “resource areas” (i.e. the spatial distribution of natural resources) that could support future sector activity. WNMP p. 16, Fig 2 illustrates an overview of those, and this includes tidal stream energy to the west and north of Anglesey. The WNMP thus provides explicit endorsement for the location of the Morlais project.
- (iii) There are also various cross-cutting policies in the WNMP. Ones of particular relevance are listed in para. 5.4.11 of Mr Bell’s proof, relating to matters such as planning policy (GEN01 and GEN 02), sustainable economic growth (ECON 01), co-existence of sectors (ECON 02), and minimising climate change (SOC 10).
- (iv) It includes general policies of relevance. Again, we bring out but one example – Policy SCI-01, which specifically states that:
“Relevant public authorities should make decisions using sound evidence and a risk-based, proportionate approach. Where appropriate they should apply the precautionary principle and consider opportunities to apply adaptive management.”
- (v) There is a key sector specific policy for low carbon technologies. On p 94 the WNMP states:
*“Energy – Low Carbon
Sector Objective 1
To contribute significantly to the decarbonisation of our economy and to our prosperity by increasing the amount of marine renewable energy generated, through:[...]
• Supporting the development and demonstration of wave energy and tidal stream technologies in the short to medium term;
• Increasing (where appropriate) the number of wave energy and tidal stream energy generation devices deployed in commercial scale developments over the medium term;
[...]*

¹⁵⁰ MDZ/D1.

Sector Objective 2

To develop Wales as an exemplar of marine renewable energy technology by developing the essential skill base, infrastructure and technical knowledge to support the development of the industry over the next 20 years."

As Mr Bell brings out in his proof of evidence, this policy has been specifically developed with reference to the 2016 Act and PPW, and highlights marine renewable energy as a strategic priority for marine planning, with significant potential for sustainable development over the WNMP lifetime. It also highlights the potential employment generation that can result from scaling up commercial arrays, and estimates that by 2040 tidal stream energy could support almost 14,500 jobs (see the supporting text paras 327-328). It also notes the Welsh Government is "*Strongly committed*" to unlocking the energy potential from Welsh waters (para. 336), and backing this project would only underline that commitment.

- (vi) WNMP Policy ELC-03 'Low carbon Energy (supporting) tidal stream' states:

"ELC03a – Proposals for tidal stream energy generation will be supported where they contribute to the objectives of this plan. Proposals should comply with the relevant general policies and sector safeguarding policies of this plan and any other relevant considerations";

"ELC03b - In order to understand future opportunities for tidal stream energy development, relevant public authorities in the sector are encouraged, in liaison with other interested parties, to collaborate and understand opportunities for the sustainable use of tidal stream energy resources including identification of..... natural resources that provide the potential opportunity for use";

- (vii) Again, we would just draw your attention to the following elements of the supporting text at para 344 (emphasis added):

"344. Under Policies ELC_02 and ELC_03 the use of demonstration zones should be supported and facilitated by using a risk-based approach to consenting, employing adaptive management where this is necessary and appropriate for the management of impacts that are hard to predict at the point of decision making in line with Policy SCI_01. The Welsh Government is working with TCE, NRW, industry, Marine Energy Wales and others to progress testing and demonstration zones for wave and floating wind and tidal stream energy in order to enhance and further develop knowledge and understanding of risks, opportunities and capabilities. The demonstration zones off south Pembrokeshire (wave) and west Anglesey (tidal stream) provide good opportunity for developers to deploy, refine and demonstrate their

technologies before expanding projects into wider commercial scale resource areas, subject to successful tests and acceptability in terms of potential adverse effects."

95. It is Mr Bell's unchallenged view that the proposed development is consistent with those policy provisions, with other relevant policies in the WNMP and with the WNMP as a whole. Against that view the RYA have suggested that the policy conflicts with the WNMP, based entirely on the RYA's view of the impact of the proposal on recreational boating.¹⁵¹ We will deal with that in more detail when we come to main matters discussions later, but suffice to note here that the RYA did not take the opportunity to challenge Mr Bell's conclusion when it was made in evidence, which we submit gives you an indication of how unsupportable they know their contentions to be.
96. A further key planning policy document, and one which you specifically highlighted, is the draft National Development Framework *Future Wales – The National Plan 2040*¹⁵² (the "NDF"). Mr Bell addresses this in his proof of evidence from para 5.4.25 and following.¹⁵³ The post consultation amended NDF was placed before the Senedd on 21 September 2020. We highlight the following points:
- (i) Chapter 1 now makes reference to both the climate emergency and ecological emergency to which we have already referred. We quote from p. 3:

"we face a climate emergency which is actively changing our environment and directly affecting humans; we have an ecological emergency, where the behaviours and decisions of the human race are causing harm to the resilience of ecosystems and species; we have suffered the effects of a global health pandemic and must re-energise our economy in a sustainable way, demonstrating that we have learnt from previous excesses that have resulted in inequitable wealth and access to services. The Welsh Government will face these challenges and find the opportunities for a better Wales with every mechanism at our disposal. Our National Development Framework in this context is an important lever to deliver the change we need."
 - (ii) The NDF explicitly refers to the WNMP, noting that the WNMP has informed the development of the NDF and, where relevant, it should inform strategic and local Development Plans and planning decisions. The two work together to provide a framework for the management of change around the coast. The NDF explicitly acknowledges that co-ordination between marine and terrestrial planning is

¹⁵¹ MDZ/N2, RYA Statement of Case, para. 11.5.

¹⁵² MDZ/D41.

¹⁵³ MDZ/P9 Mr Bell Proof of Evidence, para 5.4.25ff.

important to facilitate the development of, among other things, energy generation.¹⁵⁴

- (iii) References in Chapter 2 to climate change have been strengthened from the initial version. In particular, it now states that it is “*vital that we reduce our emissions to protect our own wellbeing and to demonstrate our global responsibility*”.¹⁵⁵
- (iv) Although offshore proposals do not fall within the remit of the NDF, the Welsh Government sets out in Policy 18 that it is supportive of offshore proposals, noting that the “*the onshore development aspect of offshore schemes are supported*”.¹⁵⁶ It cross-refers to the WNMP, recognising there are a number of opportunities to generate renewable energy across a variety of technologies both onshore and offshore which “*should be maximised to help meet the targets.*”
- (v) Chapter 5 makes reference to the regions of Wales. Policy 24 is dedicated to “North West Wales and Energy”, stating that “*The Welsh Government supports North West Wales as a location for new energy development and investment. Proposed developments associated with the Isle of Anglesey Energy Island Programme, [...] will be supported in principle as a means to create significant economic benefits for the area as well as generating renewable or low carbon energy. [...] On-shore developments associated with offshore renewable energy projects will be supported in principle*”.

97. So, the latest version of the NDF places additional emphasis and importance on climate change, and maintains specific references to the offshore opportunities presented in the context of the Isle of Anglesey. Mr Bell’s unchallenged view is that the development is consistent with the document when read as a whole, and that the NDF should be afforded significant weight.

98. To complete the planning policy picture you should also refer to the Joint Local Development Plan (“**JLDP**”)¹⁵⁷ and the provisions of the Isle of Anglesey Area of

¹⁵⁴ MDZ/D41 at pp. 8-9 of the PDF.

¹⁵⁵ MDZ/D41 at p. 21 of the PDF.

¹⁵⁶ MDZ/D41 at p. 82 of the PDF, col. 1.

¹⁵⁷ MDZ/D52.

Outstanding Natural Beauty Management Plan.¹⁵⁸ Mr Bell deals with key policies from both in his proof.¹⁵⁹ In the interests of time we highlight only JLDP Theme 3¹⁶⁰, which aims to support growth and regeneration and transform the local economy under the umbrella of the Anglesey Energy Island Programme, and JLDP Strategic Policy PS7, which supports (wherever feasible and viable), renewable energy generation, including from marine sources. There is thus strong support for this scheme in the statutory development plan as well. We should also note here (and we will address this in more detail below) that although IoACC initially had concerns the scheme was contrary to the JLDP, those have been addressed.¹⁶¹

99. Taking that together – and we appreciate there is a lot – it is Mr Bell’s view that the principle of this development has compelling policy support.¹⁶² Menter Môn agrees, and commends that unchallenged conclusion to you.

100. It is against that broad background that we move onto the policy context for the main matters in issue: ecology, character and appearance, socio-economic impact, and navigation.

101. The first is biodiversity and ecology. These have been addressed at section 6.3 of Mr Bell’s proof of evidence and again by him in evidence in chief. We particularly refer you to his proof of evidence, as that includes a lot of helpful cross referencing. Although biodiversity has taken up a lot of inquiry time, the policy position can in fact be relatively shortly stated. The key point drawn out by Mr Bell is that, when it comes to marine mammals, the broad policy approach seeks to avoid adverse impacts, minimise impacts where they cannot be avoided, and mitigate impacts. From his review of Dr Learmonth’s evidence (which we will come to shortly), Mr Bell considers a highly precautionary approach has been taken to allow the deployment of Phase One, and put appropriate safeguards (such as the EMMP) in place to minimise the risk of adverse effects.¹⁶³ Overall, he relies on Dr Learmonth’s position that the applicant has worked and will continue to

¹⁵⁸ MDZ/D7.

¹⁵⁹ See para 5.5.1ff.

¹⁶⁰ P. 29.

¹⁶¹ MDZ/L7 p22 row 26.

¹⁶² MDZ/P9 Mr Bell Proof of Evidence section 6.2, and evidence in chief Day 1, PM.

¹⁶³ In this, Mr Bell also relies on the evidence of Mr Fortune.

work with NRW to ensure there is no significant risk to marine mammals and no potential for adverse effect on the integrity of designated sites where marine mammals are a qualifying feature. Similarly, he has drawn on the approach of Dr Grant when it comes to considering matters of ornithology, and Mr Campbell for onshore ecology. Taking that body of evidence together Mr Bell considers the proposed development is, in terms of applicable planning policy, acceptable. It should also be noted that, in the Statement of Common Ground now agreed with IoACC¹⁶⁴ it is agreed that an ecological action plan is now secured through deemed planning condition 3.

102. The second specific matter you highlight is character and appearance. IoACC does not now object on these grounds, because of mitigation committed to as part of the project, and because Menter Môn has agreed to fund certain measures, secured by a s. 106 obligation cross linked to Condition 21 of the draft deemed planning conditions.¹⁶⁵ Those funds are to be payable by Menter Môn and applied toward (1) landscape improvement works on land managed by IoACC, (2) providing funding to projects undertaking landscape restoration or enhancement programmes, (3) directly funding landscape improvement work on third party owned land, and (4) improving public access to land including the provision of new public road rights or improving existing roads. It is agreed these measures are sufficient to address IoACC's concern that the proposals are contrary to the JLDP, specifically policies PS19, AMG3 and AMG4.

103. There are, however, parties that still raise character and appearance concerns, and so we address them. The policy matters to which you should have regard are all referred to in detail in section 6.4 of Mr Bell's proof of evidence. In particular, he highlights key policies in the JLDP and the AONB Management Plan. We do not recite them here. Instead, we emphasise Mr Bell's conclusions – again unchallenged. In his view, relying on the detailed evidence of Mr Myers:

- (i) Menter Môn has been proactive in incorporating mitigation measures in the offshore elements of the project. These include limitations on the number of surface emergent tidal devices and where they can be deployed; a minimum separation

¹⁶⁴ MDZ/L7, Appendix B.

¹⁶⁵ MDZ/L7, p21 and Appendix B Condition 21.

distance of 1km applied to the coastline for visually prominent devices, with it generally being further; and the DDP;

- (ii) In addition, in terms of the onshore components of the project, structures have been positioned to reduce potential seascape, landscape and visual effects (e.g. by considering the ground level of any buildings and locating them in the context of existing structures where possible); specific mitigation is proposed in relation to the landfall Substation (comprising the design and layout of the structures, proposed materials, boundary treatments and reducing security fencing and lighting); and the use of underground cables and routing this within local road corridors where possible.

104. It is accepted that there would be some significant adverse impact on views from the AONB of the seascape, and that the development would not be consistent with policy objectives that seek to enhance the AONB. However, almost no major development would ever be able to satisfy that policy principle of enhancement, and it is inescapable that any type of development will result in some policy tensions with those provisions. Moreover, the locations in the UK that are suitable for tidal device deployment are all in or near remote places appreciated for the landscape – and those which are frequently protected as such (as Dr Orme explained). The Skerries and PTEC proposals for example are both located off AONBs. A balance is required as to what is acceptable given the constraints imposed by geography and the pressing need for more renewable energy. What is clear is that considerable efforts have gone into ensuring that the design approach has been very carefully considered, which is supplemented by the various mitigation provisions referred to above. These were all explained in detail in Mr Myers’ evidence, and we come back to that. Overall, taking all of that into account it is Mr Bell’s unchallenged view that given the evidence presented by Dr Orme and Mr Myers, the proposed development is acceptable in terms of planning policy in respect of these matters.

105. Turning to the policies underlying socio-economic impact of the project, these are addressed in detail at section 6.5 of Mr Bell’s proof of evidence, where he cross references in detail to the evidence of Dr Jones and to both national policies and the JLDP. In particular we draw your attention to the Vision set out in the JLDP at para. 4.7, which sees

the Isle of Anglesey adapting to and responding positively to the challenges of climate change. A fundamental part of that vision is that the Isle of Anglesey is:

“recognized as a leading location for a variety of renewable and low carbon energy sectors and knowledge based industries, which will have contributed to transforming the local economy, ..., generating low carbon energy and catalysing regeneration in the Plan area.”

106. Importantly in terms of the local economy, there are economic benefits set out in Chapter 25 of the ES and summarised in Mr Bell’s proof at para. 6.5.9 with regard to the estimated local expenditure during construction, the jobs to be created during construction and the repowering stages, and from operational and maintenance activity. Overall, in terms of the benefits that are estimated to occur for the project, and in light of the various mitigation actions proposed with regard to socio-economics as set out in the evidence of Dr Jones, Mr Bell considers that the proposed development accords with planning policies to support local economies. Again, this is unchallenged and we commend it to you. We also note in passing (we will come back to this when discussing the substance of socio-economic impact), that IoACC is now content with the socio-economic effects of the projects and the mechanisms that allow for the monitoring and securing of benefits and mitigations. This is reflected in the statement of common ground.¹⁶⁶

107. Notwithstanding the fact that no party sought cross examine Mr Bell when the opportunity was offered, the RYA proof of evidence raises the matter of recreational amenity and socio-economic matters. In particular, Mr Hill’s proof of evidence asserts that NPS EN-1 requires a socio-economic impact assessment at local or regional levels, and that Menter Môn, with regard to recreational boating and associated economic activity, failed to undertake that assessment.¹⁶⁷ He also states that applicants should describe the existing socio-economic conditions in the area in order to give proper consideration to mitigation, and asserts again that Menter Môn has failed to do so.¹⁶⁸ We will come back to whether this is factually correct below, but from a policy perspective you will recall Mr Bell’s (unchallenged) view that there are two points here: (1) the socio-economic impact

¹⁶⁶ MDZ/L7 p. 22ff at entries 27-36.

¹⁶⁷ POE008, Mr Hill Proof of Evidence para A.10.

¹⁶⁸ POE008, Mr Hill Proof of Evidence para A.10.

of the project in relation to recreational boating and associated economic activity, and (2) effects in relation to water based recreational amenity. These he considered covered in

- (i) The evidence of Mr Myers and the Seascape Landscape Visual Impact Assessment (“SLVIA”) chapter of the ES;¹⁶⁹
- (ii) The evidence of Cdr. Brown in terms of navigation and the associated ES chapter;¹⁷⁰and
- (iii) The evidence of Dr Jones and as set out in the Chapter 25 of the ES.¹⁷¹

108. The impacts, Mr Bell considered, would include potential direct impact on the recreational resource area which has primarily been assessed by Cdr. Brown. From a planning policy perspective, the material impacts are broadly, and on a high level basis:

- (i) The potential for direct impact on recreational activity areas;
- (ii) Visual impact in relation to recreational amenity for water based activities; and
- (iii) Whether the effects, were they to arise, could have a knock-on indirect impact in relation to propensity for visitors or users to spend time in the area, for to be deterred from undertaking repeat visits.

109. Mr Bell concluded, from his review of the ES chapters and the evidence of the witnesses, that these matters are satisfactorily covered. The allegation that such assessments have not been undertaken is therefore incorrect.

110. Mr Bell also considered Mr Hill’s allegation in para. C1 of his proof of evidence¹⁷², based on the WNMP and policy ELC-02b regarding the need for collaborative working when establishing a demonstration zone, that Menter Môn “*has not had due regard for the*

¹⁶⁹ MDZ/A25.24.

¹⁷⁰ MDZ/A25.15.

¹⁷¹ MDZ/A25.25.

¹⁷² POE008, Mr Hill Proof of Evidence

WNMP with respect to promoting collaborative work between stakeholders before applying for consent". That, Mr Bell considers, to be contrary to the evidence before the inquiry on the approach undertaken and the evidence outlined by Cdr. Brown. It is Mr Bell's experience when dealing with major infrastructure projects that if the landscape and visual effects of a development are deemed acceptable in the overall planning balance (and clearly that is Menter Môn's position here) then as a consequence the effects of the development in relation to tourism and recreation and those aspects of the local economy would be acceptable. There may, Mr Bell considered, be particular circumstances in any given case where there might be a specific activity requiring more detailed consideration, and that particular topic is addressed in more detail by other witnesses. He also added that a key matter of the WNMP is the policy of facilitating satisfactory co-existence between users, as expressed through policy ECON_02 (and see Mr Bell's proof at para 5.4.11). The policy recognises that co-existence will help optimise the use of the marine area. He considered that satisfactory co-existence can take place and that the effects covering visual amenity, boating amenity activity and potential economic impact have been addressed and are considered acceptable.

111. Finally, to the extent any party went further, and alleged there *would be* a negative socio-economic impact, you will recall Mr Bell's reminder during the socio-economic RT¹⁷³ that NPS EN-1 para 5.12.7¹⁷⁴ provides a decision maker may accord limited weight to any such assertions which are not supported by evidence.

112. The final specific main matter issue relates to navigation. Mr Bell addresses this in his proof of evidence at para. 6.6. The key planning points are, he considers:

- (i) The phased nature of deployment of generating devices, with a modest first two phases allowing considerable opportunity to measure actual impacts against prediction; and
- (ii) Cdr. Brown's view that by committing to the provisions of the Navigation Risk Assessment ("NRA") the project is navigationally safe, and that he could see no

¹⁷³ Day 6, PM Session 2.

¹⁷⁴ MDZ/D2.

reason why from a marine and navigation perspective the project should not be given approval.

113. In light of the technical evidence presented by Cdr. Brown, Mr Bell considers only limited weight should be given to navigation objections. A key policy objective in the WNMP is to achieve satisfactory co-existence of activities. Mr Bell considered that objective achieved for the project in relation to other marine interests. Again, and we have emphasised this before, this was unchallenged.

114. Turning then, to the overall planning balance, Mr Bell considered the key conclusions informing the planning balance include:

- (i) The Welsh Government supports North West Wales as a location for new energy development and investment as set out in the latest version of the NDF which has been placed before the Senedd at its final stage. The language in the NDF on the need to combat the global climate heating crisis is demonstrably stronger than that in the current PPW. Furthermore, the context within which the NDF and the WNMP policy statements were given is demonstrably different by way of more stretching emission reduction targets and the declared climate emergency.
- (ii) Mr Bell's evidence has confirmed the more urgent need for more renewable energy capacity: an increase of this renewable energy technology is supported through a number of policy documents and by Welsh and UK Government commitments. The need was already viewed and described as "urgent¹⁷⁵" to the attainment of targets in 2011 with the publication of the Overarching NPS for Energy EN-1. It is beyond dispute that this imperative has only increased since a climate emergency was declared and new net zero targets introduced.
- (iii) There is compelling support for the MDZ in national and local plan policies in so far as the project will make a significant contribution to the transition to low carbon electricity generation and investment in the local economy of North Wales and Anglesey.

¹⁷⁵ MDZ/D2 EN-1 paragraph 3.4.5.

- (iv) The proposed development has been designed to avoid where possible significant adverse impacts and with the proposed mitigation measures secured through the Order provisions and deemed planning conditions.
- (v) The proposed development has been designed to avoid harm to the integrity of protected sites, with regard to the Habitats Regulations. The ES and Information to Support the HRA¹⁷⁶ demonstrates that the potential impacts of the proposed development have been carefully considered and the proposed mitigation measures will reduce and manage impacts.

115. Mr Bell fairly acknowledges that there will be some significant impacts predicted on views from some locations within the AONB of the seascape. However, his view, taking into account the view of Mr Myers, is that these impacts cannot be avoided and have been mitigated as far as reasonably practicable through siting and design, and compensation for landscape enhancement to be secured by a s. 106 obligation. IoACC shares this view.

116. The various national and local energy and planning policy documents that Mr Bell has examined set out a strong position of support in relation to renewable energy and renewable energy targets and recognise the significant energy resource that can be provided by offshore resources. This is clearly not at any cost; matters such as environmental effects need to be judged to be acceptable. However, in Mr Bell's view, the residual adverse impacts are outweighed in the planning balance by:

- (i) the overall accordance with planning and energy policy;
- (ii) the delivery of significant benefits from renewable energy generation of up to 240 MW, including
- (iii) the ability for new operators to trial their products before wider deployment;

¹⁷⁶ MDZ/A27.11.

- (iv) the significant economic benefits to Anglesey during construction and in the operation and maintenance phase, and to the wider Welsh economy.

117. He concluded that it has therefore not only been demonstrated that the proposed development accords with local and national planning policy, but that there is additionally a substantial need for this type of development in order that pressing future targets in relation to the global heating crisis and renewable energy generation and greenhouse gas emission reductions can be met in time.

118. We can do no more at this point than commend that view to you. Mr Bell is an experienced planner. His views are careful and considered, and have been reached after a thorough review not only of the Applicant's case but those of other parties. Crucially, his view went entirely unchallenged in cross examination on Day 1.

Regulatory regime relationship

119. Turning to the relationship between the ML, Deemed Planning Permission and this TWAO, we do not say much more than what was in the Eversheds Sutherland Note of 23 November 2020.¹⁷⁷ With the exception of a point raised by the RSPB, that note has not proven controversial, and indeed we heard from NRW's counsel, Mr G Lewis, that it has given NRW Advisory "*a great deal of comfort*" in how we all understand the separate regimes and controls to apply.¹⁷⁸ We therefore submit you can proceed on the basis of what is in that Eversheds Sutherland Note. We also highlight the mitigation route map that is present in the Core Documents, outlining where specific controls lie between these three regimes.¹⁷⁹ We will, however, address two further distinct, but closely related matters that have arisen in this inquiry.

¹⁷⁷ RPE008 Mr Hill Proof of Evidence.

¹⁷⁸ Mr G Lewis, contribution in the Regulatory RT, Day 2 AM session 1. One point that was raised was what is meant by references to "reasonable expectation" in para 24.10 of the Eversheds Sutherland Note. As Mr Maile explained in the RT, that is no more than an expression that one would normally expect conditions to be attached to a ML to ensure the environmental statement is delivered and project parameters adhered to. As you put it, it is simply an expectation that the relevant ML regulatory (NRW) will act competently.

¹⁷⁹ MDZ/A16.7.

120. First, Sir, you have mentioned the well-established expectation that other competent regulators will act competently. That is entirely correct, as we have laid out above, it being something supported by High Court case-law.

121. The second but closely related issue is what that means in practice – what do the Welsh Ministers have to decide now and on what basis can that be made, and then what can be left to later regulation. This arises in two distinct contexts – RSPB have raised it in the context of what one might consider a “pure” environmental matter (i.e. the impact on birds), but you also raised it in the context of navigation issues – if it can be assumed NRW Regulatory will competently regulate with regard to the ML, how far do the Welsh Ministers have to go into the same question?¹⁸⁰ The same point arises with the MCA and Trinity House who have key roles in relation to the DPP and the further NRAs required on each deployment.

122. We have laid out the principles above. In particular we refer you back to the extracts from *Atkinson* (also cited by the RSPB in their closing), *Smith*, and *Hereford Waste Watchers*. With regard to environmental impacts, It is implied in the closing speech for RSPB (see para. 25) that we rely *only* on the fact that further consents are required in order to persuade the Welsh Ministers they can be satisfied of the environmental impacts of this projects. That wholly misreads *Menter Môn*’s case and is rather undermined by the weeks of evidence you have just heard and reams of documentation which relate to the environmental impact of this project. We say (for reasons we will explore more below) that what is before you is more than adequate for the Welsh Ministers to consider the likely significant effects of the projects, and conclude that *in light of* (but not solely because of) the need for subsequent consent from other responsible bodies, they are unlikely to be significant and that appropriate mitigation measures will be taken.¹⁸¹ Indeed Sir, we can see from para. 28 of RSPB’s closing, and Dr McCluskie’s concerns in cross examination that even if it takes part in the Advisory Group deployments may take place with which RSPB is not happy, that what really underlies their concern is a wish for a veto.

¹⁸⁰ Your question to NRW’s Mr Byass during the Character and Appearance RT, Day 6 AM Session 1.

¹⁸¹ A particular point is made in the RSPB’s closing (Inquiry Doc – 146, para. 23) , foreshadowed in the Regulatory Functions RT, regarding the fact that s. 13C(4) TWA does not allow the imposition of conditions on a ML, whereas it does on a deemed planning permission. There is nothing in this. As *Smith* makes clear the Welsh Ministers can still have regard to what other responsible bodies are likely to do, and it would be most unlikely for NRW to impose less stringent conditions in the ML than those which *Menter Môn* itself offers.

123. With specific regard to navigational impacts, we submit that the Welsh Ministers should assess these to the same level that they would any other potential environmental impact under the EIA requirements. As you have highlighted in the navigation RT,¹⁸² the need to prevent interference with legitimate uses of the sea is one factor which NRW will consider when issuing a ML.¹⁸³ This, of course, includes navigation and navigational safety.¹⁸⁴ You are to assume they will competently regulate and that a ML can make provision for adequate safety of water users. When you put that to the attendees of the navigation RT none disagreed with that. So, the task for the Welsh Ministers is to assess what the likely impacts of the project are on the navigation of the sea and its users, bearing in mind both (a) the project envelope and “worst case” scenario, (b) the mitigations and checks built into the Order (an updated NRA must be undertaken and approved prior to any device deployment, involving the MCA and Trinity House and consultation with other stakeholders) and (c) the fact that NRW will also be concerned with safeguarding legitimate uses of the sea at the ML stage.

2. Biodiversity

124. There are a number of biodiversity issues arising from this project, covering onshore ecology, benthic ecology, ornithology, marine mammals and Menter Môn’s proposed EMMP. Although the effects of the project on migratory fish has been raised, it is no longer in issue and so we do not address it further.¹⁸⁵ There has been submitted a very lengthy and detailed ES¹⁸⁶, reams of further environmental information,¹⁸⁷ the responses to the further environmental information,¹⁸⁸ our responses to those responses,¹⁸⁹ the responses to our further modelling,¹⁹⁰ and of course all the information produced and evidence elicited at this inquiry. It is, to put it mildly, fulsome.

¹⁸² Navigation RT, Day 10, AM Session 1.

¹⁸³ S. 69(1)(c) MCAA.

¹⁸⁴ See, for the avoidance of any doubt, Explanatory Notes to the MCAA para. 241.

¹⁸⁵ See POE021, NRW’s summary Proof of Evidence, para.21.

¹⁸⁶ MDZ/A25.1-MDZ/A27.11.

¹⁸⁷ MDZ/A28.1-MDZ/A31.17.

¹⁸⁸ EIC001-EIC013.

¹⁸⁹ Inquiry Docs – 044 and 086.

¹⁹⁰ MOC001.

125. This is fully in accordance with both the requirements for an EIA and Habitats Regulations Assessment. Indeed as became clear at the inquiry perhaps the only biological impact we appear to have missed is the impact of the project on Aquatic Bears(!)¹⁹¹, and we feel confident that would have been scoped out had the matter been raised.

Onshore ecology

126. As we said in opening, a raft of assessments have been undertaken regarding the effect of this development on onshore ecology.¹⁹² Of these, the only issue now taken is the effect on the ecology where the cables make landfall, if they have to scale the cliffs at Abraham's Bosom.

127. Menter Môn's preferred solution is to use HDD to put the cables inside the cliffs. In such circumstances, the cables would emerge 220m from the cliff face.¹⁹³ Menter Môn and NRW have agreed that HDD will not have a direct effect on the SAC/SPA/SSSI, and that following the implementation of management plans any indirect effects can be considered only minor adverse.¹⁹⁴ Condition 5 of the proposed deemed planning conditions restricts the ability of Menter Môn to use anything other than HDD unless and until a written report is submitted to, and approved by, IoACC explaining why HDD is not feasible.¹⁹⁵

128. There is, at present, no reason to believe HDD cannot be used. Dr Orme has confirmed that none of the surveys or activities undertaken so far would indicate any reason why that cannot work.¹⁹⁶ You have also heard from Mark Wheeler,¹⁹⁷ a Technical Director with Black and Veatch Ltd, the head of its geotechnical team in the UK and EMEA region, who has 44 years of engineering geology and geotechnical experience. This highly credentialed witness reiterated that it was "*most unlikely*" that HDD would not be successful. In general terms, although there can be some issues with rock most HDD is successfully executed.

¹⁹¹ You will recall Mr Fortune's mistaken reference to bears in XX.

¹⁹² See e.g. MDZ/P3 Proof of Evidence of Mr Campbell, MDZ/l6 statement of common ground (other matters) between Menter Môn and NRW; Terrestrial Ecology Assessment Update v04 (MDZ/ A28.18); Chapter 19 of the ES MDZ/ A25.19; Information to Support HRA (MDZ/ A31.16).

¹⁹³ Mr Campbell in Onshore Ecology RT, Day 2, AM Session 2.

¹⁹⁴ Mr Campbell in Onshore Ecology RT, Day 2, AM Session 2 and MDZ/L6 Menter Môn Statement of Common Ground with NRW on "Other Matters", p.34.

¹⁹⁵ Inquiry Doc – 098.

¹⁹⁶ Dr Orme evidence in chief, Day 1 AM Session PM session 1.

¹⁹⁷ Mr Wheeler in Onshore Ecology RT, Day 2, AM Session 2.

Although he fairly acknowledged that a detailed consideration of the specific area in issue here had not been undertaken, the biggest risks here were the abrasive nature of the rock stemming from its quartz or silica content, and potentially steep dip of strata in certain cases. However, Mr Wheeler considered that, based on his current knowledge, nothing here could not be overcome through a combination of selecting the right drill bit and utilising steering technology. Mr Billcliff has also added that there may be issues if there are voids.¹⁹⁸ As to that – we simply will not know until drilling commences. So, there is no obvious reason to consider that HDD may not be possible here, but until the project specification is finalised and the means adopted, any potential failure must be planned for.

129. The alternative solution developed by Menter Môn is to run cables in J-tubes over the cliff edge at Abraham's Bosom. It is important to note that this is not an "*all or nothing*" approach. It is correct, as Dr Orme confirmed in evidence, that the route for any given cable cannot use both HDD and affixing J-tubes to the cliff. However, there will be multiple cables and multiple bore holes – nine of each. It might well be that some bore holes can be used, while for others HDD would prove impracticable. Accordingly, and as confirmed by Mr Billcliff, a hybrid solution is possible.¹⁹⁹ We do not rely on that – for the purposes of this assessment we have assumed in the worst-case scenario that every cable must be affixed using the J-Tube method – but you and the Welsh Ministers can take some comfort from the fact that were HDD not to work, the assessment undertaken may be worse than what has occurred.

130. Turning, then, to the fall-back position, it is worth bearing in mind the steps taken by Menter Môn following submission of the application to take the concerns of NRW into account and minimise as far as possible the potential impact of the project on the SAC/SPA/SSSI. Following a request from NRW, Menter Môn undertook a detailed botanical survey of the cliff vegetation in June 2020. Off the back of that, and in further consultation, a number of steps have been taken to minimise the effect of the project on the habitat. We make four key points:

¹⁹⁸ MDZ/P8 Mr Billcliff Proof of Evidence 4.11.4.

¹⁹⁹ MDZ/P8 Mr Billcliff Proof of Evidence, para 4.11.4.4.

- (i) Micrositing. The location of landfall has now been positioned to be within a very narrow band of the SAC to minimise the footprint on the designated habitat. At this location, the SAC is limited to the cliff face and does not include the grassland at the top of the cliff. Following receipt of the 2020 Botanical (NVC) Survey data²⁰⁰ the route has been further microsited to avoid as much of the vegetated sea cliff as possible - c. 50% of the cliff.²⁰¹
- (ii) Avoidance. The width of the working corridor has been reduced within the SAC from 30m with up to 30m working width either side (a total of 90m), to 7m with 2m working width either side (a total of 11m). The revised construction footprint within the cliff is 510m²,²⁰² an 88% reduction on the original project footprint assessed in the ES.²⁰³ All wet and dry heath habitat has also already been avoided in the creation of the original development boundary presented in the ES.
- (iii) Construction and maintenance methodology. To minimise damage to the SAC, it is now proposed to drill the J-Tubes to the cliff using bolt anchors, allowing the J-Tubes to sit approximately 400mm away from the face of the cliff. Drilling of the J-tubes will be undertaken using dust extraction equipment.²⁰⁴ At the cliff top, works within unimproved grassland habitats will be avoided as far as possible, with any stockpiles or storage taking place within poor semi-improved / improved grassland areas. Works are proposed to be undertaken directly on the cliff face or using crane mounted at the cliff top, outside the SAC, to minimise interaction with the cliff face measures will be put in place during construction of the J-Tubes (such as handholds) to ensure maintenance activities (i.e. inspection and re-painting) can occur without further disturbing the cliff during

²⁰⁰ MDZ/F10.

²⁰¹ The Microsited route is available at Figure 1, ES Update (MDZ/A28.18).

²⁰² Mr Campbell in Onshore Ecology RT, Day 2, AM Session 2.

²⁰³ MDZ A31.4 Section 6.1.2.

²⁰⁴ v04 of the ES Update (MDZ/A31.4), para 5.2.1. During the RT you raised the issue of dust and how effective any plan could be, bearing in mind a fine clay dust may be more difficult to control than more granular dust. Mr Wheeler said he thought it would be more granular dust in this case, and that Mr G Lewis and Ms H Lewis confirmed that if NRW can be presented with a satisfactory plan, it is content on the issue of pollution control (Onshore Ecology RT, Day 2, AM Session 2.).

maintenance.²⁰⁵ NRW have confirmed that they are satisfied that these measures ensure that impacts during maintenance works would be minor adverse.²⁰⁶

- (iv) The provision of environmental management plans to manage construction and environmental risks secured by planning condition. These include:
- a. An ecological action plan,
 - b. A code of construction practice and pollution prevention management plan,
 - c. A soil management plan and turf management plan,
 - d. A dust management plan,
 - e. An invasive non-native species management plan,
 - f. A landscape management plan,
 - g. A biodiversity enhancement strategy (Inquiry Doc – 070, which has been agreed with NRW).

A copy of the proposed planning conditions, all but one of which has been agreed, is at Inquiry Doc – 098 See conditions 3, 5, and 7.

131. That brings us to the sole matter in dispute – the effect of the proposed development on the Glanau Ynys Gybi/ Holy Island Coast SAC/SPA/SSSI. It is agreed that the installation of the J-Tubes will lead to some loss of the vegetated sea cliff habitat (albeit very much reduced from what was originally considered). What Menter Môn and NRW disagree about is whether that loss would give rise to AEOSI. We will outline (1) the current state of the habitat, (2) the physical impact of the proposed works and then (3) whether that can constitute a significant impact in EIA terms or AEOSI.

132. We largely agree with NRW on the state of the habitat and what the physical effect of the works will be. In terms of the habitat it is agreed, we think, that a range of habitat types are present on the cliff face and cliff top. A plan of these can be found in Fig 1 of version 4 of the Terrestrial Ecology Update.²⁰⁷ This includes communities MC1, MC1b, and a mosaic of MC5b/MC8f – all communities listed on the Annex 1 designation. The cliff face also includes other areas, such as blackthorn scrub, and an area of bare rock immediately above

²⁰⁵ v04 of the ES Update (MDZ/ A31.4).

²⁰⁶ MDZ/L6 p.35.

²⁰⁷ MDZ/ A31.4, between pp. 38-39.

the intertidal zone.²⁰⁸ We also ask you to note that although Menter Môn was specifically asked by NRW to examine the area of the existence of spotted rock-rose, spatulate fleawort, golden hair lichen and ciliate strap lichen) but none have been found.²⁰⁹ Two further species from the SSSI citation (golden samphire and species of the rock sea-lavender aggregate) were found in the MC1b and MC1 communities. That is the state of the habitat at present.

133. Turning to the impact of the proposed works, we consider the impact both during construction and then during the operation and decommissioning phases.

134. With regard to the construction phase (which is the main focus here),²¹⁰ Menter Môn has assessed the loss of habitat on the basis that trenching through a narrow coastal strip will involve disturbance and temporary habitat loss of 0.046% of the Annex I Vegetated Sea Cliffs of the Atlantic and Baltic Coasts Habitat. Of this only 0.029% will be subject to impacts in the long term (i.e., over the project's 37+ year lifetime and 10 years recovery) and the remaining 0.016% would be subject to impacts during construction only. Menter Môn assessed that any loss is recoverable in the long term, and does not give rise to loss of the key species which constitute the uniqueness of the habitat within the SAC. As an aside we should note two points:

- (i) This 0.046% is itself a highly precautionary figure. Following the 2020 Botanical (NVC) Survey data Menter Môn is of the view that the actual area of Annex 1 Habitat effected is approximately 50% of that 0.046% figure – 0.023%.²¹¹ However, we have assessed and continue to use the 0.046% figure, and you will recall during

²⁰⁸ Mr Campbell in Onshore Ecology RT, Day 2, AM Session 2. You may well recall that Ms H Lewis of NRW and Mr Campbell for Menter Môn disagreed about whether things like that bare rock, where there aren't MBC communities, should be considered part of the "Annex 1" habitat. Ms H Lewis said yes, Mr Campbell said no. However, as Mr Campbell confirmed in the Ecological RT, as a precautionary approach the assessment does consider as a worst case the other parts of the habitat that are not Annex 1 protected. So there is perhaps a difference of approach here but because Menter Môn has acted in a precautionary manner, it has not in fact affected the assessment.

²⁰⁹ Mr Campbell in Onshore Ecology RT, Day 2, AM Session 2.

²¹⁰ With regard to operation and decommissioning, following the change in maintenance methodologies Menter Môn assesses there will be, at worst, a loss of epilithic lichens within the whole footprint – an impact of minor adverse significance with which NRW agrees – see MDZ/17. No more is said about it here.

²¹¹ MDZ A31.4 Section 8, Mr Campbell in Onshore Ecology RT, Day 2, AM Session 2.

the Ecology RT Ms H Lewis confirmed she was content to proceed using that highly precautionary figure.²¹²

- (ii) There was some discussion during the Ecology RT of whether the effects should be considered temporary but long term (Menter Môn's classification) or permanent (as suggested by Ms H Lewis). The effects are in fact not permanent because the habitat will recover – it is a dynamic habitat, albeit one which is slow to recover. Ms H Lewis indeed agreed that our suggested recovery period of 5-10 years was reasonable. Instead, Ms H Lewis suggested that over the lifetime of the project it should be treated as a permanent effect. We say that is simply not right – if you treat habitat effects as permanent simply because they will continue as long as the project would, you will only ever end up with permanent habitat effects.

135. Turning then, to the question of whether these construction impacts are significant or have an AEOSI: it is Menter Môn's case that the physical impacts of the project give rise to a minor adverse impact, (i.e., one of negligible magnitude on a high importance receptor) which is not significant in EIA terms and does not cause AEOSI. As with HDD, the indirect effects arising from sediment runoff from stockpiles of excavated material and the effects from dust generated during construction are also assessed as minor adverse.²¹³ This conclusion – that there is no AEOSI – is reached bearing in mind both the works' quantitative and qualitative implications.

136. Beginning first with quantity§ - there is a range of habitat impacts which can be considered so small as to have no AEOSI. Mr Campbell has outlined some cases in which an impact was held *de minimis*. Natural England's *Small Scale Effects: How the scale of effects has been considered in respect of plans and projects affecting European sites – a review of authoritative decisions* (2016)²¹⁴ summarises many of the most important decisions up to the date of its publication. Part B specifically examines why the scale of the effect is important to decision making, with part B.3 noting how the scale of an effect might influence the conclusions at both the stage 1 (screening) and stage 2 (appropriate assessment and impact on integrity) tests. It states that "*a site's integrity is inextricably linked to the concept of the scale*

²¹² Heather Lewis in Onshore Ecology RT, Day 2, AM Session 2.

²¹³ Mr Campbell in Onshore Ecology RT, Day 2, AM Session 2.

²¹⁴ Appendix 1 to MDZ/P3, Mr Campbell's proof of evidence.

of the effect”²¹⁵. In practice, table C.3²¹⁶ records that this can be anywhere from 0.00153%-0.056% of the SAC, or 0.0000019% - 0.41% of the relevant habitat within the SAC, depending on the type of effect and nature of the habitat. Mr Campbell’s evidence also explores some more recent decisions (the Norfolk Vanguard (2020) decision)²¹⁷ in addition to the Walney OWF (2014), Able Marine Park (2013) and Gilwerne to Hafodyrynys pipeline decision (2012). We summarise this in a table below:

Project	% of habitat lost	Area of habitat lost	Annex I Habitat type
Norfolk Vanguard (2020)	0.26-1.4%	up to 930ha	Sandbanks
Walney OWF (2014)	0.41%	2.46ha	Intertidal mudflats
Able Marine Park (2013)	0.33%	31.5ha	Intertidal mudflats
Gilwerne to Hafodyrynys pipeline (2012)	0.28%	1ha	European dry heath
Construction of new hard surfaced path at Henborth (2019) ²¹⁸	N/A	No area provided 1m-wide corridor down cliff	European dry heath
<i>Upper value selected where more than one footprint is considered.</i>			

²¹⁵ Ibid internal p.11.

²¹⁶ Ibid internal p.15.

²¹⁷ Mr Campbell’s evidence also relied on the “Minded to” letter in the Hornsea 3 decision. However, since the delivery of Mr Campbell’s evidence the Hornsea P3 project has been granted a Development Consent Order by the Secretary of State. In doing so, the Secretary of State has revisited the conclusions regarding AEOI on the sandbank habitats of the North Norfolk Sandbanks and Saturn Reef SAC and the Wash and North Norfolk Coast SAC, and concluded that AEOI cannot be ruled out on the basis of uncertainty surrounding the recoverability of the Annex I habitat in question. The change in the decision was not made with reference to the scale of the habitat affected, and this change in the decision does not affect the footprints regarding de minimis decisions presented in Section 5.34 of Mr Campbell’s Proof of Evidence, as the upper limit of Annex I Sandbanks habitats affected (1.4% of the SAC area for habitats affected) is defined by the Norfolk Vanguard case presented, not the Hornsea P3 case.”

²¹⁸ We will come back to the Henborth path below – it is clearly not an infrastructure project like the others.

137. As will be immediately apparent from a review of that table, we fall well within the range where it has been held that there is no AEOSI. Ms H Lewis during the RT has made some points about the distinction between Vegetated Cliff Face on the one hand and Habitats such as Sandbanks and Intertidal Mudflats on the other. We accept these are different habitats and that what matters is the Welsh Ministers' judgment in the current context. However, that judgment should be informed by previous decisions and these provide a useful and persuasive context. For the avoidance of all doubt, we do accept that quantity is not the end of the analysis.

138. One must also, of course, consider quality. This includes consideration of matters such as the rarity, location, distribution, vulnerability to change and ecological structure of the habitat affected in order to determine whether a small scale effect may give rise to AEOSI. This is, of course, a context specific judgment. Taking everything together, Menter Môn submits this would not give rise to AEOSI. We refer you to Mr Campbell's proof of evidence and note as follows:²¹⁹

- (i) The 2020 Botanical (NVC) Survey²²⁰ found no evidence of the four key species identified by NRW (as cited in the site Core Management Plan²²¹) within the working footprint. Ms H Lewis stated that the SSSI species (Golden Samphire and rock sea-lavender aggregate) are also important, with the former being nationally scarce, such that the importance of the area cannot be dismissed. Menter Môn does not dismiss the importance of the area by any means, but the absence of the four key species sought by NRW is material. The presence of one of these four species would mark this particular section of cliff out as a key area of high value within the SAC. These species are rare and localised in a small number of areas within the SAC, with often isolated colonies present. If they had been present, we would not have concluded that the habitat would be able to recolonise following construction, as should these species be lost in one area, we would not be confident that they would recolonise, as there are unlikely to be neighbouring areas which can provide propagules /a seedbank for recolonization;

²¹⁹ MDZ/P3 para 5.35.

²²⁰ MDZ/F10.

²²¹ MDZ/F2.

- (ii) The vegetated sea cliff habitat is by its nature a dynamic ecosystem, comprised of pioneer species and early establishers of disturbed ground, and is situated on a substrate which is active and prone to infrequent collapse. Although the habitat is marginal and therefore prone to easy damage, it is also recoverable. As such, assuming that the surrounding habitats integrity is maintained, the recovery prospects for the cliff face habitat from disturbance are positive in the long term.²²² Ms H Lewis stated that pioneer habitat is condition dependant. We do not disagree with that, but as the conditions will be the same following decommissioning (same substrate, same cliff structure such as the retention of crevices / ledges and the regolith associated with them, same saline influence, same climatic conditions, same nearby seedbank, same clifftop habitats) the conditions will be present for recolonization. This may take time (we acknowledge 5-10 years), and it may not be identical to what was lost (given the habitat is a mosaic with various pockets of interest) but recolonization is likely to happen.
- (iii) The area affected is a narrow strip (maximum 11m-wide), and is considered unlikely to prevent the seed dispersal pattern or habitat connectivity across the working area, thus not affecting the overall ecosystem function beyond the habitat directly affected;
- (iv) Ms H Lewis made reference to the conservation objectives, asserting they are not really dealt with in Menter Môn's ecological assessment and emphasising (by reference to one performance indicator), that there should be no anthropogenic activity which could alter the extent of features. The Conservation Objectives were explicitly considered in Mr Campbell's proof and throughout the document – see e.g. para. 1.7 of Mr Campbells proof of evidence and²²³ paras. 9.2 -9.3 of the Terrestrial Ecology Update (version 4).²²⁴ With regard to the conservation objective concerns specifically:

²²² Ms H Lewis during the RT made a comment that one cannot recreate like with like. We accept that any further measures undertaken by Menter Môn to help with biodiversity net gain (see below) by changing grassland habitat would not recreate the Annex 1 vegetated sea cliff habitat lost, but have never asserted otherwise. We do not understand this to go to the point regarding whether any loss is significant and/or AEOSI.

²²³ MDZ/P3.

²²⁴ MDZ/A28.18.

- a. the *Small Scale Sites* notes that the extent to which a development might undermine the conservation objectives will be influenced by its scale.²²⁵ This is, obviously, something to which Mr Campbell has had regard in reaching his conclusion, and
 - b. the Henborth path. This is a helpful example of a planning permission²²⁶ granted for a (private) path in this sensitive area. The proposal involves the creation of a 1m wide strip of new, hard surfaced path in place of an existing, unpaved path. That current path, Mr Llewellyn accepted, is not visible in his videos and largely overgrown with vegetation. The view of NRW and IoACC was that on the basis of a cursory desktop ecological study that there were no likely significant effects for EIA and no adverse effect in terms of habitats.²²⁷ Ms H Lewis confirmed that NRW had indeed visited this area,²²⁸ and on the same area, of cliffs in the same SAC/SPA/SSSI they were content with these works, and the construction of them. This shows that the hardline view of their witness that the conservation objectives allow for “*no anthropogenic activity that could alter the extent of features*” and “*no measurable decline in the mapped extent of the feature at Penrhyn Mawr or Holyhead Mountain*” is simply not correct. It does seem extraordinary that NRW would take a far stricter approach where the scheme in issue carries such strong public benefit, but takes a more pragmatic (some might say realistic) approach in respect of a private development that confers no public benefit at all.
- (v) Ms H Lewis stated that Sea Cliffs are restricted to the coastal zone, that is 1% of Wales. Menter Môn accepts that, but given the foregoing points that does not prevent a finding of a minor adverse effect. We are still affecting only a very small percentage of the Annex I vegetated sea cliff habitat. It is important to compare the loss against the extent of this habitat found locally, not the prevalence of the habitat within the country.

²²⁵ Appendix 1 to MDZ/P3, Mr Campbell’s proof of evidence.

²²⁶ You will recall that Mr Llewellyn initially denied having planning permission for this, but that it became apparent after some questioning in the public speaking session (Day 2, PM public speaking session) that he did, it was simply conditional as all planning permissions are.

²²⁷ MDZ/P3 Appendices 11 and 12.

²²⁸ Ms H Lewis, Onshore Ecology RT, Day 2, AM Session 2.

- (vi) At times, Ms H Lewis during the ecology appeared to be looking at the wrong stage of the assessment, asking whether there was likely to be a significant effect – the screening stage in any habitats assessment. Here, however, we are past the screening stage and the question is whether there is AEOSI.

139. In light of this, and the temporary nature of the effects, the project concludes no AEOSI on the SAC. This conclusion falls comfortably within the margins of previous decisions.

140. We also take this opportunity to remind you of the following:

- (i) The whole of the western coastline is a designated European Site, so if one is going to have an energy project with landfall at Anglesey, something supported by *inter alia* the WNMP, one is going to have to go through the protected site *somewhere* unless HDD can be used - and no one can be entirely sure this is possible until it is tried. Menter Môn has chosen narrowest section of the protected site. Any scheme coming forward will have to say they would like to use HDD, but cannot rule out needing a reserve option.
- (ii) The habitat enhancement mechanisms Menter Môn intends to put in place, through a biodiversity net gain initiative.²²⁹ To be very clear, we do not say this is “compensation” within Art. 6(4) of the Habitats Directive because we say there is no AEOSI. We do, however, acknowledge there will be some (albeit *de minimis*) impacts on the habitats on the cliff face, and so propose to undertake steps to restore areas of grassland to a more natural state along the top of the cliff, to enhance the coastal ecosystem and allow the development of a more natural transitional zone. NRW²³⁰ have informed Menter Môn that they are satisfied with this outline enhancement plan - Inquiry Doc 70.

²²⁹ GC RT evidence. During the RT Mr G Lewis for NRW said that biodiversity net gain is not a concept found in Welsh Planning Policy, which instead talks about enhancement and restoration. Menter Môn submits nothing turns on this.

²³⁰ The fact that agreement has been reached is recorded in Inquiry Doc - 64.

141. If the Welsh Ministers were to reject all of the above and were instead to accept NRW's case that the impact on the cliffs was such that an AEOSI cannot be ruled out then there remains - as NRW have suggested - an alternative route to the making of the Order.

142. To be clear this is not the case that Menter Môn has advanced, and instead we urge a conclusion of no AEOSI based on the above. In its closing NRW say, relying on the *Hart* case as applied by the Court of Appeal in *Mynydd Gwynt* (see para. 11 of NRW's closing speech) say that great weight should be given to NRW's views on this issue because it is the appropriate nature conservation body and that "cogent" reasons are needed to depart from its view. Reference is also made by NRW to what is said in TAN5 to the effect that the views of NRW on such matters should only be departed from where there are "exceptional and convincing reasons". The correct position in law, it is submitted, is as set out by the Court of Appeal in *Mynydd* - a 2018 case, rather than the somewhat earlier TAN from 2009. It is submitted, in any event, that the detailed evidence of Mr Campbell and the other detailed documents submitted dealing extensively with onshore ecology (see above) provide a cogent and indeed compelling and convincing basis for departing from NRW's views. Where NRW's position is challenged and tested and explored fully at inquiry - as they have been here - it cannot be correct to set some overly high burden for its views to be overridden. This is supported by numerous cases. (see e.g. *Wealden DC v Secretary of State for Communities and Local Government* [2017] EWHC 351 (Admin) at 44 (viii) per Jay J and *Thorpe Hall Leisure Ltd v Secretary of State for Housing, Communities and Local Government* [2020] EWHC 44 (Admin) 15 Jan 2020 per Sir Duncan Ouseley Sitting as a High Court Judge at paras 35 and 63– 64²³¹) and decisions in a number of other planning appeals. The evidence has been tested and explored. NRW's case on the law and the facts should be rejected.

143. But, if the Welsh Ministers are ultimately against us, as NRW suggests, then Reg. 64 is an alternative route that is open to the Welsh Ministers. This was the route taken to consent by the Secretary of State is the recent Hornsea 3 Offshore Wind Farm decision.

²³¹ *Wealden* reads: "a decision-maker discharging its duties under the Habitats Directive and the Habitats Regulations should give the views of a statutory consultee [in that case NE] considerable weight ... However, that advice is not binding and it does not have to be given such weight if cogent reasons can be given for departing from it"; *Thorpe Hall* shows that an Inspector is perfectly free to depart from the advice of NE so long as reasons are given)

144. To grant consent under this route regs. 64 and 68 of the Habitats Regulations requires three things:

- (i) First, that the project is carried out for imperative reasons of overriding public interest ("IROPI") and which may be of a social or economic nature ,
- (ii) Second, that there are no alternative solutions to the project are available which are less damaging to the affected European site;
- (iii) Third, compensatory measures are secured.

145. In relation to the first it is submitted that the benefits of this scheme which are set out fully above, and have not really been disputed by any party, are sufficient to give rise to IROPI. NRW in closing, in raising the Reg. 64 alternative, did not seek to suggest that the benefits of the scheme could not properly be regarded as IROPI.

146. In relation to the second, something is only an alternative for the purposes of Reg. 64 if it feasible and it would actually meet the objectives of the project. If an alternative fails to meet a genuine and critical objective of the project it is not an alternative: see the Plan B case (above). There are no alternatives here for these reasons:

- (i) The essential objectives of this scheme are set out at para. 6 above (including creating employment in North Wales, mitigating the closure of Wylfa and harnessing the opportunity for North Wales to become globally significant in the development and commercialisation of tidal energy generation. The objectives and need for the project are also set out in the ES (Chapter 1, Section 1.2.1 and para. 31, MDZ/A25.1). These objectives would not be met by a scheme that was not in Wales;
- (ii) In relation to Wales, The Crown Estate has identified the area in which the MDZ is located as the appropriate location for such a facility off Wales;
- (iii) Moreover, Welsh Government policy - including the WNMP and the NDF (see above) strongly supports this project in this location;

- (iv) If a tidal energy scheme is to be located in the resource area of Holy Island then the cabling route is (as explained above) going to have to cross the SAC which runs along this whole section of coast. Indeed, as explained above the cliff fall location chosen is where the SAC is at its narrowest and thus the impacts are least. Other cabling options were ruled out as not feasible: see e.g. Mr Billcliff's Proof of Evidence at para. 4.5 and in the ES Chapter 3 (MDZ25.3).
- (v) Works to the cliffs may only be undertaken if it is shown that HDD is not feasible: see the conditions on the Deemed planning permission. HDD is expected to be feasible and work.
- (vi) The works have been micro-sited as far as possible: see Mr Campbell's Proof of Evidence at paras. 3.5 - 3.9.
- (vii) More information on alternatives, and why these were rejected, is provided in MDZ/ A25.3. This chapter of the ES covers why Anglesey, the site selection process and project alternatives.

147. In relation to the third matter above NRW have stated (see their closing at para. 33) that the "Outline Habitat Enhancement Plan" (while not submitted for this purpose) can be regarded as necessary compensation for the purposes of Reg. 68 of the Habitats Regulations.

148. The above provides a sufficient basis for a decision based on Reg. 64, but this is not the approach that Menter Môn advocates.

Benthic and intertidal habitats

149. Turning to benthic and subtidal habitats, again agreement has been reached between NRW and Menter Môn on this topic,²³² and you will recall this was a remarkably productive and collegial RT. Menter Môn's position is, firmly, that benthic concerns are not a reason to refuse this application. That is NRW's position too.

²³² MDZ/L6.

150. By way of brief summary, this part of the application concerns the seabed between the MDZ and export cable corridor (sometimes known as the Offshore Development Area or “OfDA”). Some features of conservation importance have been identified within the OfDA via the EIA characterisation surveys undertaken in 2018 – three Annex 1 reef features were identified (bedrock, stony and biogenic reef), which are protected under the Habitats Directive. However, it should be noted at the outset that these features are not designated feature of the North Anglesey SAC, so we are not in Reg. 63 Habitats Regulations territory.²³³

151. In any case, it is not the case that the entirety of the seabed in the OfDA is this protected habitat. Only some parts of the OfDA constitute this habitat, and as Mr J Lewis made clear in the benthic RT, save for bedrock and stony reef, the seabed is entirely variable. Menter Môn’s ES therefore undertook an assessment on the highly precautionary (and artificial) assumption that the entirety of the seabed is this protected habitat. Without mitigation, the ES assessed that the long term loss of benthic habitat and Annex I reef features via initial placement of the project infrastructure and re-powering would result in a moderate adverse impact.²³⁴ With the mitigation of more detailed pre-construction surveys (which would actually make clear to where the Annex I habitats were) and then micro-siting project infrastructure to try and avoid such habitat, the ES concluded this could be reduced to a minor adverse effect.²³⁵

152. Now, Sir, the position when the RT opened was this: NRW appears to accept that this proposal will lead to some loss of habitat. NRW is not contesting that cannot happen. Instead, it raised concern about the efficacy of mitigations and micro-siting and links that back to an alleged requirement for more detailed surveys. Mr Wray, for NRW, had requested in his Appendix to NRW’s proof of evidence²³⁶ an Outline Marine Biodiversity Enhancement Strategy (“OMBES”), to be secured by condition in the ML. Menter Môn then provided such a strategy in Appendix 3 to Mr Fortune’s rebuttal proof of evidence.²³⁷ So, by the time of the RT there were (1) big picture questions about the efficacy of Menter

²³³ See paras. 1-11 OMBES, Inquiry Doc – 069.

²³⁴ MDZ/A25.9 para. 144-151

²³⁵ Ibid 152-153

²³⁶ Para. 4.8

²³⁷ Paras 1-11 OMBES outlines that history. We flag it, at this point, because points were made in the RT regarding the late supply of the OBES by Menter Môn. Menter Môn, however, had to consider and design an entirely new outline strategy.

Môn's ES survey and mitigation questions, and (2) other specific points on the OMBES. We are pleased to say that the latter issue has been resolved. Since the RT further discussions have been held between Menter Môn and NRW, culminating in the version of the OMBES submitted to the inquiry in January this year.²³⁸ We understand this is acceptable to NRW, and a final version will therefore be produced in the post-consent phase. The requirement to produce this final version is proposed to be include in a ML condition, and at NRW's request has been included as one of the documents at Part 4 of Schedule 1 of the Order.²³⁹

153. In light of the fact that agreement has now been reached on the OMBES, we do not think the former dispute remains an issue for you, as our understand of NRW's position is that the OMBES resolves their concerns. However, we will take it shortly. As mentioned, the complaint NRW has persisted with is that it wanted further, more detailed, survey work done to the mosaic of benthic habitats, and that without that a proper assessment cannot be undertaken.²⁴⁰ We have two short points in reply:

- (i) All that a more detailed assessment could achieve would be to reduce the significance of the assessed impact on benthic habitats. The assessment in the EIA has been taken on an ultra-precautionary basis, assuming that all of the habitat that could be affected is sensitive. It clearly is not. Crucially, therefore, the ES survey and related assessment is as precautionary as it can be.
- (ii) As explained by Mr J Lewis in the RT, an ES will typically be undertaken significantly before offshore construction would be due to take place – sometimes by up to four or five years. In that period, the benthic habitats may change. This applies in particular to biogenic reef habitats such as *Sabellaria spinulosa* which are characterised by exhibiting large temporal and spatial variation. Instead, it is common practice²⁴¹ to undertake a somewhat less detailed survey to characterise

²³⁸ Inquiry Doc – 069.

²³⁹ Inquiry Doc – 102

²⁴⁰ See e.g. Para 5.1 of Appendix X to NRW's proof.

²⁴¹ Mr Wray disagreed with the argument that this was common practice. We suggest you and the Welsh Ministers prefer the evidence of Mr J Lewis, a director of Marinspace Ltd, who has impeccable credentials including working on the biodiversity enhancement strategy of Swansea Bay. We do not, however, think anything turns on this.

the site and to inform the ES, progressing to a more granular view through more detailed pre-construction surveys closer to the time of deployment. As you pithily put it to Mr J Lewis, an applicant provides the evidence that is necessary at ES stage, and adds to it on a site specific level when deployment occurs.

On that basis, we submit the impacts on benthic ecology are not be a reason to refuse this application. We do not understand that to be NRW's case either.

Marine mammals

(i) Introduction

154. The potential impacts of tidal devices on marine mammals has been a key consideration in relation to the Morlais project from the outset. The particular focus being in relation to:

- (i) the North Anglesey Marine SAC, in which the MDZ is located and which is designated for harbour porpoise; and
- (ii) the potential effects on bottlenose dolphin and grey seal which are features of the Pen Lyn, Cardigan Bay and Pembrokeshire Marine SACs, to the extent that these animals could forage or move through the MDZ.

155. The ES Chapter 12²⁴² and the Information to Support HRA²⁴³ set out in considerable detail all the possible adverse impacts on these three species as well as Risso's dolphins, common dolphins and minke whales. The list of potential impacts considered is exhaustive, covering all aspects of: (i) construction, installation and repowering; (ii) operation and maintenance (iii) decommissioning and (iv) in-combination effects²⁴⁴.

156. In their evidence to this inquiry NRW pursued just three potential impacts on marine mammals: (i) collision risk with tidal devices; (ii) disturbance by noise from the operation of tidal devices and (iii) the impacts of the deployment of Acoustic Deterrent Devices ("ADDs"). None of the many other potential impacts that have been assessed in Chapter

²⁴² MDZ/A31.14.

²⁴³ MDZ/A31.16.

²⁴⁴ MDZ/A31.34 at para. 301.

12 of the ES have been pursued at this inquiry by NRW²⁴⁵. Thus, it can be reported to the Welsh Ministers that the only issues that require consideration are the three identified in NRW's proof.

157. In relation to the first of these issues, which Mr G Lewis in the RT rightly said was in fact NRW's "main issue" in relation to marine mammals, it has now been agreed by Menter Môn and NRW that it can be reported to the Welsh Ministers that collision risk from the Morlais project does not give rise to AEOSI in respect of marine mammals, this is confirmed by NRW's note²⁴⁶ which explains that "*securing the DEMMP (and the specified details required), based on the oEMMP, via a condition on the draft marine licence*" provides "*assurance*" that "*there will be no adverse effect on marine mammals as a result of collision*". Happily, in its closing NRW also announced that the other two issues are agreed.

(ii) Collision risk

158. Before setting out in more detail the agreed position now happily reached between NRW and Menter Môn to the effect that the Morlais project will not give rise to AEOSI in respect of marine mammals under the Habitats Regulations, there are some preliminary points that need to be set out.

159. First, Menter Môn is delighted that agreement has now been reached with NRW on this key issue in relation to the protection of marine mammals. It will be recalled from Dr Orme's evidence that Menter Môn is a not for profit company providing solutions to the challenges facing rural Wales, and seeking to add value to its natural resources. Menter Môn would never have pursued this project if it considered that it would risk harm being caused to marine mammals. Thus, throughout the process it has sought to do all in its power to demonstrate that the MDZ will not have an AEOSI on marine mammals in the area through collision risk. That is why:

²⁴⁵ See the full list of potential impacts in MDZ/A31.14, pp 73 – 74, and see also in the Marine Mammals Statement of Common Ground MDZ/L1 Table 3-2. This lists 43 issues of which 34 are marked green as entirely agreed. Of those marked ongoing or not agreed for three of them cumulative impact, assessment methodology and barrier effects and IROPI NRW have agreed that these are secondary matters capable of agreement at a later stage and so not covered in evidence to the inquiry. One concerns IROPI that is not in issue here. Of the remaining issues: 16, 32, 39, 40 and 43 these all relate to the three main issues set out above: collision risk, operational noise and ADDs or to the content of the EMMP.

²⁴⁶ Inquiry Doc - 085, at point 1.

- (i) Since 2017 the lead marine mammal technical specialist for the Morlais project has been Dr Learmonth. Her experience as a mammal consultant on infrastructure projects including tidal²⁴⁷ is absolutely second to none. Her extensive experience includes working on two other tidal projects²⁴⁸. Indeed, it should be noted that she worked on the marine mammal HRA required for the tidal lagoon policy in the Welsh National Marine Plan on behalf of the Welsh Government.
- (ii) Menter Môn has undertaken many detailed and exhaustive assessments and technical pieces of work in respect of marine mammals, and in particular in relation to the issue of collision risk (as well as noise – see below); and
- (iii) Menter Môn have been so willing to accept and adopt NRW's advice on measures to be included in the EMMP to limit to the lowest possible level any risks to marine mammals – see below.

160. Second, while there is no disputing the importance of the protections afforded to marine mammals in law – and indeed this has driven all of Menter Môn's actions - it must be said that the collision risk issue is on the evidence somewhat of a hypothetical risk. Thus:

- (i) NRW have published a document produced by ABPmer entitled Review of potential collision risk between tidal stream devices and marine mammals²⁴⁹ ("**the NRW collision risk Review**") which acknowledges that *"to date, none of the monitoring studies on marine mammals and seabirds have been able to record a direct collision with a device"* and that this *"may reflect an absence of collisions"*²⁵⁰;
- (ii) Dr Learmonth's proof contains an overview²⁵¹ of operational tidal turbine installations which shows there has been deployment of 23.5 MW of tidal devices for in total 51.3 operational years in areas where marine mammals are known to

²⁴⁷ Thus, by way of example she worked on the Brims tidal development from 2015 to 2018.

²⁴⁸ E.g. Brims tidal development.

²⁴⁹ MDZ/F15.2.

²⁵⁰ Ibid. p. 10.

²⁵¹ See Table 2, pp 6 – 7.

be present without any evidence of a single collision²⁵². Despite this Dr Learmonth notes that it is “*theorized that the moving rotors of tidal energy devices pose a potential collision risk for marine mammals*”²⁵³;

- (iii) Further, this year a report was published in relation to monitoring undertaken over a number of years in respect of the Bluemull Sound. The first tidal device was installed there in 2016, and there are now four.²⁵⁴ Throughout this time (and indeed before) there has been extensive monitoring undertaken including vantage point surveys and underwater video²⁵⁵. The environmental monitoring report was published in June 2020 by EnFAIT and is entitled *Enabling Future Arrays in Tidal*²⁵⁶. In relation to marine mammals the most commonly recorded at that site was the harbour porpoise but despite this the surveys showed “*a very low level of spatial overlap between marine mammals and turbines ... even taking into account the most frequently recorded and abundant species*”²⁵⁷ and it was concluded that “*the results indicate that the likelihood of near-field encounters between diving birds and marine mammals and therefore the risk of negative environmental effect is very low*”²⁵⁸.

161. Third, despite all the above, the risk – the theoretical risk – of collision between marine mammals and tidal devices has been extensively modelled and assessed by Menter Môn. For the marine mammal collision risk assessment two methods were employed, Encounter Rate Modelling (“ERM”) and Collision Risk Modelling (“CRM”), using the Scottish Natural Heritage (“SNH”) guidance for assessing collision risk between underwater turbines and marine wildlife²⁵⁹. This approach was agreed with NRW at the 2nd Marine Mammal Technical Working Group (“TWG”) in February 2019, as outlined in the marine mammals SoCG²⁶⁰. The use of ERM and CRM, as Ms Morris helpfully points out in her proof, is “*widely accepted in the renewable industry sector*”²⁶¹ and indeed has been very

²⁵² See MDZ/P2 Dr Learmonth’s Proof of Evidence at para 6.3.

²⁵³ Ibid. para 6.4

²⁵⁴ Though many of the reports reference three devices, a fourth device was added in October 2020.

²⁵⁵ See section 2.2. The video footage alone runs to 20,000 hours and 1 million videos (see section 2.2.2) and was “*a highly effective approach for gathering information*” (see section 3.4.2)

²⁵⁶ See RSPB’s proof, POE007, and which starts at electronic page 915.

²⁵⁷ See section 3.2.1, internal page number 12.

²⁵⁸ Ibid., and see also section 5.1.1.

²⁵⁹ MDZ/F19.

²⁶⁰ MDZ/L1.

²⁶¹ See POE021 Ms Morris’ proof at para 4.1.1.

widely (indeed universally) used on other renewables schemes²⁶². Moreover, the NRW collision risk Review itself recognises that these models, even recognising the limitations of any modelling, “are still the best way²⁶³ to assess the potential risk of collision”²⁶⁴.

162. Fourth, because there remain uncertainties with the modelling, as a result of the relatively limited deployment of tidal devices to date, Menter Môn built in a number of very precautionary parameters²⁶⁵ including:

- (i) using two models and using worst-case for maximum predicted collision risk²⁶⁶;
- (ii) linear scaling of individual device to array, assuming all devices in array could have the same collision risk²⁶⁷;
- (iii) using the highest marine mammal density estimates used, assuming evenly distributed across the site and wider area throughout the year²⁶⁸;
- (iv) assuming that all collisions or encounters would be fatal²⁶⁹; and
- (v) using realistic worst-cases for the devices²⁷⁰.

163. Fifth, it must be recalled that the outputs of the collision risk modelling take no account at all of the proposed mitigations secured via the EMMP. That is of course crucial, as it is the monitoring and mitigation built into the EMMP and the assurance that a Detailed

²⁶² See RPE004 Dr Learmonth’s Rebuttal Proof of Evidence at para. 2.16.

²⁶³ As is recorded in RPE004 Dr Learmonth’s rebuttal “[i]t should be noted, as acknowledged by SNH (2016) [CD MDZ/F19], that the ERM and CRM methods will provide at best, an order of magnitude estimate of collision risk. As stated in SNH (2016) [CD MDZ/F19]: “Neither the ERM nor the CRM can be regarded as an accurate calculator of encounter or collision rate. However, both are likely to provide a reasonable order-of-magnitude estimate.” In that, based on the parameters used in the models the results should provide reasonable estimations of the number of individuals that could encounter or collide with a turbine device, which is then scaled up for the potential number of devices that could be deployed.”

²⁶⁴ See MDZ F15.2 p. 10.

²⁶⁵ See MDZ/P2 Dr Learmonth’s Proof of Evidence at para. 6.6.

²⁶⁶ Ibid. para. 6.11.

²⁶⁷ Ibid para 6.17.

²⁶⁸ Ibid. paras. 6.23 – 6.27.

²⁶⁹ Ibid. para 6.36.

²⁷⁰ Ibid. paras. 6.14 – 6.16.

EMMP will be developed²⁷¹, in line with a proposed draft condition on the ML that has resulted in NRW withdrawing its objection to the Morlais project on the grounds of collision risk to marine mammals.

164. Sixth, the proper avoidance rate to be applied is a quintessentially a question of judgment²⁷². Dr Learmonth's evidence²⁷³ explains that an avoidance rate of 98% is considered a precautionary and yet realistic approach. Underwater noise from operational turbines will be detected by marine mammals and this is why it has the potential to cause disturbance (see below²⁷⁴), but it also means that these animals can detect and hence avoid the devices. But to allow for the potential for masking of the devices' operational noise due to high background noise levels in the area, 100% avoidance behaviour has not been assumed to occur in response to tidal device noise. However, the tidal devices do make noise and are relatively large with solid structures, which would be detectable by marine mammals. Given that, the 98% avoidance rate is clearly a justified judgment. Moreover, this rate has been used in risk assessments on other tidal schemes²⁷⁵, something from which the Welsh Ministers can take comfort.

165. Despite all of the above NRW maintain that there remain some shortcomings in the assessment of collision risk. Menter Môn refutes this and the Welsh Ministers should be referred to Dr Learmonth's rebuttal at paras 2.9 – 2.31 which really is the last word on these matters. But in any event, most of the disputes that remain are effectively resolved as now both NRW and Menter Môn agree that as a result of the revised Outline EMMP, and assurance that there will be a "sufficient nexus" between this and the Detailed EMMP²⁷⁶ it can be safely concluded by the Welsh Ministers that the Morlais project will not have an AEOSI on marine mammals. The revised Outline EMMP has taken on board all of NRW's Advice on adaptive management of the risk of collision impacts on protected

²⁷¹ Inquiry Doc - 085 point 1.

²⁷² See NRW's collision risk Review MDZ/F.15.2 at p. 12.

²⁷³ See MDZ/P2 Dr Learmonth's Proof of Evidence at para 6.32.

²⁷⁴ See the Underwater Noise Modelling Note MDZ/A28.11.

²⁷⁵ See MDZ/P2 Dr Learmonth's Proof of Evidence at para 6.31 and RPE004 her rebuttal at para. 2.23. In relation to the suggestion of a possible 68% avoidance rate (see POE021 Ms Morris' proof at para. 4.1) see RPE004 Dr Learmonth's rebuttal at paras. 2.26 – 2.30. The suggestion of such a low rate is totally without merit.

²⁷⁶ Inquiry Doc 085 – Point 1. This nexus will be secured both within the Outline EMMP itself (see Inquiry Docs – 100 and 101, para. 16) and as a condition on the ML – Inquiry Doc 90.

marine mammal species in Welsh waters from the Morlais project²⁷⁷. Thus, the Outline EMMP²⁷⁸ now includes, inter alia, all the following commitments:

- (i) That it will be demonstrated prior to any tidal device operation (for Phase One and for all subsequent phases to full build out) that the real-time monitoring will be able to: (a) detect marine mammal movements in and around an array and collisions with the devices as they occur, in real-time, and report accordingly; and (b) determine, in the event of a collision, what species or species groups have collided with the devices, in real-time²⁷⁹.
- (ii) That if for any reason following evidence of a collision it is not possible to determine the species, then a worst-case scenario will be assumed that it was a bottlenose dolphin – the species with by far the lowest PBR. And, further, if it is not possible to determine the severity of the collision, then a worst-case scenario will be assumed that it was a fatal collision²⁸⁰.
- (iii) If there is evidence of collision there will be the implementation of adaptive management measures to ensure that the risk of further collisions is reduced, and which will be agreed and demonstrated prior to any tidal device operation,²⁸¹ following the tiered hierarchy²⁸².
- (iv) Prior to any tidal device operation the mitigation is proven to be effective and will be adapted in response to any increasing risk of causing adverse effect²⁸³.
- (v) And, crucially, there is a failsafe that allows NRW to require that tidal devices cease operation²⁸⁴. NRW's Collision Decision Framework has been included in the

²⁷⁷ MDZ/F15.3.

²⁷⁸ MDZ/A16.8, latest version at Inquiry Docs – 100 and 101.

²⁷⁹ Para 8 and 46(1)

²⁸⁰ Para 46(1).

²⁸¹ Para 46(2).

²⁸² Paras 46(3) and 48.

²⁸³ Para. 46(4).

²⁸⁴ Paras 48-49, 69, 137.

EMMP to ensure a rapid response and demonstrate the decisions that will be made in real-time should a suspected collision occur²⁸⁵;

- (vi) There is a set maximum collision limit for all relevant marine mammal species and which must not be exceeded²⁸⁶. The lowest of these limits – the most stringent - is for bottlenose dolphin and this is 2 over 3 years;
- (vii) Moreover, Phase One of the Morlais Project is defined by the species limits which NRW assured Menter Môn would result in there being no significant impact on marine mammals or AEOSI on any designated sites with marine mammals as a qualifying feature.²⁸⁷ These limits (the lowest of which is currently 0.7 bottlenose dolphin) were provided in advice to Morlais in October 2020,²⁸⁸ and subsequently agreed in the Statement of Common Ground on Marine Mammals.²⁸⁹ NRW has clearly accepted that any deployment coming under those limits will not have an AEOSI, and we explicitly ask the Welsh Ministers to so find. The reason we ask for this explicitly finding is because despite this clear acceptance, NRW in both Ms Morris' evidence and in submissions seek to qualify this. Ms Morris in paras 4.1.9 suggests that there should be further reduction from the 0.7PBR threshold, despite later admitting at para 4.2.3 that NRW "*do not consider it possible*" to define a scale at which no AEOSI is predicted.²⁹⁰ See to the NRW note ahead of the EMMP

²⁸⁵ Paras 98-99, 104, 137, and Plate 2-1.

²⁸⁶ Paras 45, 46(3), 50.

²⁸⁷ Paras. 39, 50.

²⁸⁸ MDZ/F15.3. See e.g. p. 14 which states "*The species limits represent the maximum number of collisions between individual animals of a species or a species group, and the moving parts of the turbines, that are considered to be compatible with avoiding adverse effects on the integrity of SACs and would ensure no detriment to the conservation status of European Protected Species (EPS).*"

²⁸⁹ MDZ/L1 See para 2.1.1.1 which states: "*An adaptive management approach is being adopted at Morlais, whereby a first phase of device will be deployed and monitored prior to deployment of further devices. The scale of the first phase is constrained and defined as having a predicted impact of less than 0.7 Bottlenose dolphin collision per year. The number of devices and MW that this corresponds to is subject to review post consent depending on the device type being deployed and its associated collision risk. This will be managed through an Environmental Mitigation and Monitoring Plan (EMMP) which will be a condition of the Marine Licence, in accordance with the Outline EMMP (document reference, MOR/RHDHV/DOC/0072 (latest version submitted 18th November 2020). The position of Menter Môn and NRW regarding mitigation and monitoring is discussed in Section 3.*" And see p. 14 entry 12 which states "*NRW have advised following a marine mammals meeting on 06/01/20 that the current maximum sustainable mortality for this bottlenose dolphin population, calculated as the Potential Biological Removal is 0.7 animals per year*" and "*Note, that NRW updated their position to 0.7 bottlenose dolphin, so predicted collision risk should fall below this figure to be able to rule out adverse effect on site integrity.*"

²⁹⁰ POE021.

session at point 2.²⁹¹ The view Ms Morris takes is simply unsupportable – it is wholly unhelpful for a regulator to say “a little bit more” but “we don’t know how much more”. We ask the Welsh Ministers to make a finding that the species limits NRW agreed with us are adequate to avoid AEOSI.

- (viii) Now returning to the point we were making, which is that the EMMP will safeguard the relevant species limits. Phase One “[w]ill be installed at a capacity (MW) at which no significant impact is predicted on marine mammals or diving birds using the MDZ. This commitment ensures an initial level of mitigation in place at the start of the EMMP through the limitation of the scale of the development”. The scale of the Phase One deployment (MW) will be determined by the outcome of further modelling of potential collision and encounter risk for marine mammals and diving birds, and associated population modelling, which is in turn dependent upon: (i) the type of TECs to be installed in the array; and (ii) the physical characteristics of the location of the array.
- (ix) Each stage of deployment would then only progress based on the species collision limits and that the regular reviewing of the monitoring and mitigation indicate that there was no increased collision risk.

166. It must be stated that it is Menter Môn’s expectation based on all the detailed work it has undertaken, and based on the experience from the operation of other tidal devices, that there will not be any mammal collisions. But, what all the above provisions do is to very strictly control and limit the Morlais project and allow immediate action to be taken in real time if any of this proves in any way to be incorrect. In this regard it is pertinent to note that in NRW’s *Defining project envelopes for marine energy projects: review and tidal energy test facility and marine mammals case study*²⁹² it is recognised that one knowledge gap is in relation to the understanding of how marine mammals may respond to multiple devices²⁹³. But, the only way to move the sum total of human knowledge forward is to deploy devices, albeit in a strictly controlled and limited way, based on monitoring and

²⁹¹ Inquiry Doc - 085.

²⁹² MDZ/F15 Sparling and Smith.

²⁹³ See p. 82.

adaptive management. And that is what NRW and Menter Môn have agreed through the EMMP.

167. The limitation of the deployment in Phase One as set out in the EMMP needs to be explored a little bit further as it is also relevant in relation to NRW's remaining noise issues. The Marine Mammals Additional Collision Risk Modelling²⁹⁴ sets out at Table 3-3 the maximum possible MW deployment and the number of devices for each possible device type²⁹⁵ based on the 0.7 PBR for bottlenose dolphin. The result is that Phase One is likely to be no more than about 12 MW and to consist of (very roughly) between 4 to 10 tidal devices (though Table 3-3 makes clear this could be up to 21 smaller devices). This is on any view, a relatively limited level of initial deployment. And, deliberately so. This then allows for monitoring, and with further phases dependent on the outcome of this.

168. The short conclusion is this. It can be conclusively, and happily, be reported to Welsh Ministers that the Morlais Project may be consented without risk of AEOSI as a result of marine mammal collision.

(iii) Noise from operation of tidal devices

169. In terms of the noise issue that arises from the operation of the tidal devices there are a number of introductory points to make.

170. First, happily NRW have now agreed that any adverse integrity as a consequence of noise can be ruled out (see NRW's closing at para. 46).

171. Second, Menter Môn has provided a considerable amount of information – including noise modelling on an indicative and reasonable worst-case basis - to allow the noise impacts to be assessed as far as they can be at this stage; but in any event beyond that the EMMP contains requirements for further modelling and assessment when the devices to be deployed are known, and further monitoring following the first (initial, and quite limited) deployment. Menter Môn's position is thus that: (i) it has provided more than sufficient information in relation to these matters for the purposes of the making of the Order; and (ii) in any event further controls have been embedded in the EMMP that

²⁹⁴ MDZ/A31.13.

²⁹⁵ On this see Table 12-76 in Chapter 12 of the ES, MDZ/A31.14. What this might look out is shown in Dr Orme's presentation (Inquiry Doc - 001) p. 21 and while illustrative shows 6 devices only.

require further modelling and assessment post-consent. . There is provision through the EMMP for more detailed modelling once the proposed devices are known. This, is now agreed.

172. Third, under the Outline EMMP (and later the Detailed EMMP) noise is a matter that will be further monitored and if necessary mitigated. And this is now agreed with NRW. Thus, the Outline EMMP's objectives in terms of environmental protection includes not just collision risk but also noise (see para. 5), and as is explained in para. 53 "*the assessment of potential significant effects from underwater noise is included in the EMMP. This will include underwater noise modelling and monitoring*". The provisions include:

- (i) Para 22: referring to the development of a Marine Mammal Mitigation Protocol to protect against any risk of permanent auditory injury to marine mammals as a result of construction, despite assessments indicating no risk and this not being an issue raised by NRW.
- (ii) Para 23 provides that prior to any deployment "*[u]nderwater noise from operational turbines will be reviewed as part of the ongoing development of the EMMP when details on the types of devices to be deployed are available post consent*". These assessments will then "*determine the potential for any significant disturbance based on operational tidal device noise levels in different conditions, for individual devices and the array of devices to be deployed, taking into account ambient noise, the different species hearing sensitivities and the latest guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise Special Areas of Conservation (SACs) (JNCC et al., 2020), as the MDZ is located in the North Anglesey Marine/Gogledd Môn Forol SAC designated for harbour porpoise*".
- (iii) Similarly, and this is considered below, "*the underwater noise from Acoustic Deterrent Devices (ADDs) will be reviewed as part of the ongoing development of the EMMP when details on the types of ADDs to be deployed are available post consent*". And "*once information on noise source levels for the types of ADDs to be used is available, will determine the potential for any significant disturbance based on individual and multiple ADDs that could be activated across the Morlais site, taking into account ambient noise, the different species hearing sensitivities and the latest SNCB Guidance ...*" (see para.

25). The EMMP “will ensure that underwater noise from operational turbines will not result in the significant disturbance of marine mammals and that, following the latest Statutory Nature Conservation Body (SNCB) Guidance...underwater noise disturbance in the North Anglesey Marine/Gogledd Mon Forol SAC, for the project alone or in combination with other projects and activities, would not exclude harbour porpoise from more than

1. 20% of the relevant area of the site in any given day; or
2. an average of 10% of the relevant area of the site over a season” (para. 24);²⁹⁶

- (iv) Moreover, and again despite this not being an issue raised by NRW “[p]rior to deployment, the array layout will take into account the potential for any barrier effects as a result of underwater noise from operational tidal turbines and the use of any ADDs, as well as the potential of any physical barrier effects. This will also be developed as part of the EMMP” (see para. 25);
- (v) In addition, once there is initial deployment, monitoring will be undertaken in order to address data gaps and will not only inform the modelling and assessments for the next phases of the Morlais development, but also for the ongoing development of the tidal energy industry. This will include, but not be limited to “underwater noise monitoring to determine if noise limits from operational tidal turbines are sufficient for marine mammals to detect them, but not high enough to result in any auditory injury or significant long-term disturbance” (see para. 59, 3rd bullet);
- (vi) Moreover, in terms of the Advisory Group to be established one of its aims is proposed to be (see para 75) to “[a]llow development of the Project to proceed without ... significant disturbance, displacement or barrier effects as a result of underwater noise”;
- (vii) The monitoring indicators in the EMMP (see Table 2-1, at I8) include noise, as does the outline monitoring questions (see Table 2-2, Q8);

²⁹⁶ NRW, in Inquiry Doc – 085, point 5, fail to really engage with para. 24-26 of the Outline EMMP. Instead, they simply ask for further information, which of course will take place at the Detailed EMMP stage.

(viii) Following the EMMP RT some additional wording has been added on noise to deal with the issues raised by NRW in Inquiry Docs – 100 and 101, – see paras. 30, 147, Table 4-1 and 163.

173. The most recent changes are what have prompted NRW to agree that adverse effect from noise can be ruled out.

174. Given the agreement reached the technical issues explored are no longer central. Menter Môn sets out its case on these though in case it should be regarded as relevant going forward.

175. First, noise issues have been the subject of really quite extensive consideration in the ES, the Information to Support HRA and also in the Underwater Noise Modelling Report²⁹⁷ and the Underwater Noise Modelling Note²⁹⁸, as well as in the written and oral evidence of Dr Learmonth. Subacoustech conducted the underwater noise modelling for the Morlais project. Subacoustech have over 20 years' experience in conducting underwater noise modelling for the marine industry to monitor and mitigate the effects of noise in the marine environment²⁹⁹.

176. Second, because the devices to be deployed are not known at this stage the assessment of noise has in a number of respects been based on a worst-case scenario, and hence is precautionary. Thus, Chapter 12 of the ES³⁰⁰ for example used a worst-case scenario having reviewed all currently available information for different types of devices: see section 12.6.4.1.

177. Third, the assessments suggest that the turbines would be audible to marine mammals, which it is important to note is a desirable outcome in order to assist in avoiding collision risk, but obviously it is important that they are not loud enough to result in any significant long-term disturbance and negative impacts.

²⁹⁷ MDZ/A28.10.

²⁹⁸ MDZ.A.28.11.

²⁹⁹ See RPE004, Dr Learmonth's Rebuttal Proof of Evidence, at para 2.120.

³⁰⁰ MDZ/A31.14.

178. Fourth, in terms of the thresholds used to assess disturbance there are a number of points³⁰¹:

- (i) Currently no agreed thresholds and criteria exist for modelling the disturbance of marine mammals from underwater noise³⁰².
- (ii) Accordingly, the modelling used two potential thresholds for disturbance effects:
 - (i) 120 dB (SPL_{RMS}) based on Southall et al. (2007); and (ii) 142 dB based on Hastie et al. (2018)³⁰³.
- (iii) It is acknowledged that the 142dB threshold was not intended by Hastie et al³⁰⁴ as such to represent a threshold for avoidance, but importantly this is consistent with the observations in Southall et al. (2007), that exposures exceeding 140 dB³⁰⁵ induced an avoidance behaviour response in wild harbour porpoise. As a precautionary approach, noise levels exceeding the 142 dB³⁰⁶ threshold have been regarded as having the potential to result in some disturbance, particularly to harbour porpoise. Therefore, this is adjudged to be a suitable threshold to determine the potential for disturbance.
- (iv) The 120dB³⁰⁷ threshold used is the worst case for a possible initial behavioural reaction in marine mammals, particularly harbour porpoise. However, marine mammals, including harbour porpoise, would not be significantly disturbed from the maximum area predicted by the 120dB³⁰⁸ threshold. This is clear given that background noise levels of 120dB³⁰⁹ have been recorded in the vicinity of Cemlyn

³⁰¹ See Dr Learmonth's rebuttal at paras. 2.123 and 2.135, and her evidence in the RT.

³⁰² Ms Morris at the RT acknowledged that there were not accepted thresholds for disturbance, and that this is hard to define.

³⁰³ See MDZ/A28.11 p. 6. a. It is important to note that the 120dB re 1 µPa (SPL_{RMS}) criteria based on Southall et al. (2007), was not included in the subsequent Southall et al. (2019) Marine Mammal Noise Exposure Criteria: Updated Scientific Recommendations for Residual Hearing Effects: see paras 2.127 – 2.130 of Dr Learmonth's rebuttal.

³⁰⁴ See RPE004 Dr Learmonth's rebuttal at para. 2.134.

³⁰⁵ re: 1 µPa (SPL_{RMS}).

³⁰⁶ re 1 µPa (SPL_{RMS}).

³⁰⁷ re 1 µPa (SPL_{RMS}).

³⁰⁸ re 1 µPa (SPL_{RMS}).

³⁰⁹ re 1 µPa (SPL_{RMS}).

Bay, Cemaes Bay and the Wylfa Newydd Development Area off north Anglesey³¹⁰. As such, the noise plots that NRW commented on (and that show noise up to a 120dB threshold may propagate approximately 17km from the centre of the array³¹¹) indicate the area over which marine mammals could (a) detect the noise from operational turbines and (b) may illicit some kind of a response. But they would not result in continuous disturbance at this range and certainly would not cause AEOSI on North Anglesey Marine SAC for the duration of the project operation.

- (v) At the RT Ms Morris said that NRW asked for a range of thresholds to be used to show impact ranges and that while NRW queried the choice of the 142db it was acknowledged similar thresholds are sometimes used. She said that NRW advised that 120dB was also presented to allow assessment and comparison and she accepted that this had been done. But she went on to complain that this modelling was done for a single large and a single small turbine, but not for all the array scenarios. The concern being not, as Mr G Lewis at first suggested it was, that there was no assessment of array scenarios but rather that the assessment was limited to only two indicative scenarios shown in plots in the Underwater Noise Modelling Report at figures 4-10 and 4-11³¹². This is very similar to the complaint made in the *Spurrier* and *Plan B* cases and rejected: see the discussion of this case above. Given the stage reached the assessment had to be indicative, and the indicative scenarios considered are clearly reasonable. There was also a complaint made by Ms Morris that the associated data for these indicative scenarios was not presented and this meant that there was thus no estimate of the maximum noise disturbance range³¹³. But in relation to this Dr Learmonth's rebuttal explains³¹⁴ that "[t]he noise modelling presented as noise plots is an indicative worst-case. As outlined in section 4.2.3 Underwater Noise Modelling Report³¹⁵, ranges for cumulative impact have not been calculated as there are multiple source locations, and no possible 'start' location for any

³¹⁰ MDZ/A25.12, although greater than background noise levels in and around the MDZ of 89 dB to 107 dB SPLRMS re 1 µPa (Underwater Noise Modelling Note, MDZ/A28.11). This does illustrate that background noise levels can exceed 120dB re 1 µPa (SPLRMS).

³¹¹ Figure 3 MDZ/A28.10.

³¹² MDZ/A28.11.

³¹³ See POE021 Ms Morris' proof at para 4.3.6.

³¹⁴ See para. 4.120.

³¹⁵ MDZ/A28.10.

receptor for exposure calculation. In respect of prediction of the maximum distance, the modelling would have to decide on what reference point to use – for example, a point in an array, either an end of an array or the centre of array. Therefore, as the underwater noise modelling is indicative and not based on actual noise levels from potential array scenarios, this has not yet been modelled in detail”. This is a clear and compelling explanation of why more cannot be provided at this stage, and of course the EMMP itself requires further modelling later on when the devices to be deployed are known: and this is now agreed. But there is a more fundamental reason why the NRW criticism here is without merit. We turn to this next.

179. Fifth, although the noise modelling is indicative at this stage and not based on actual array scenarios, which have not yet been – and cannot be - modelled further at this stage, nonetheless the assessments and underwater noise modelling for operational turbines have been based on the best information currently available and worst-case scenarios, using a similar approach that was used for the collision risk modelling and assessments. A range of thresholds and criteria have been presented and assessed in the ES³¹⁶, Information to Support HRA³¹⁷, the Underwater Noise Modelling Report³¹⁸ and Underwater Noise Modelling Assessment Note³¹⁹. As there are currently no agreed thresholds and criteria for modelling the disturbance of marine mammals from underwater noise, the best currently available information was used. Providing a range of potential thresholds and criteria was a precautionary approach to ensure a range of potential impact ranges were included in the assessments.

180. The latest Statutory Nature Conservation Bodies (SNCBs) Guidance for assessing the significance of noise disturbance against Conservation Objectives of harbour porpoise SACs in England, Wales & Northern Ireland (JNCC et al., 2020), defines significant noise disturbance within a harbour porpoise SAC as noise disturbance within an SAC from a plan/project, individually or in combination, is considered to be significant if it excludes harbour porpoises from more than: (i) 20% of the relevant area of the site in any given day, or (ii) an average of 10% of the relevant area of the site over a season.

³¹⁶ MDZ/A25.12.

³¹⁷ MDZ/A31.16.

³¹⁸ MDZ/A28.10.

³¹⁹ MDZ/A28.11.

181. The Underwater Noise Modelling Note³²⁰ presented an assessment for the full deployment based on arrays rather than individual tidal devices, as individual marine mammals would be more likely to be disturbed by the closest turbine they approach rather than all individual turbines within the array. As an indicative precautionary worst-case, the assessment was based on up to 10 arrays for 240MW. Also, the assessment assumed no overlap in disturbance areas between arrays / groups of turbines.
182. The potential impact area of 0.15km² for 10 tidal devices representing 10 arrays (based on 70m maximum range for large turbine and 142dB range) represents up to 0.005% of the North Anglesey Marine SAC (which has an area of 3,249km²)³²¹. Even for the maximum impact area of 5.31km² (based on 1.3km maximum impact range for large turbine and using the 120dB threshold) the maximum area for 10 devices representing 10 arrays could result in a disturbance area of up to 53.1km², which is 1.6% of the North Anglesey Marine SAC³²². The assessment in the Information to Support HRA³²³ and ES³²⁴ was based on a maximum area of potential disturbance of harbour porpoise from operational turbines of 11.7km², which represents 0.36% of the North Anglesey Marine SAC³²⁵.
183. The assessments in the ES³²⁶, HRA³²⁷ and Underwater Noise Modelling Note³²⁸ indicate, under these circumstances, based on the current SNCB guidance (JNCC et al., 2020), the area of potential disturbance could never – no matter how much detailed modelling was undertaken - exceed 20% of the area of the SAC at any given time or exceed an average of 10% of the seasonal area of the site over a season.

³²⁰ MDZ/A28.11.

³²¹ Seasonal average for 183 days in summer season is up to 0.005%.

³²² Seasonal average for 183 days in summer season is up to 1.6%.

³²³ CD MDZ/A31.16.

³²⁴ MDZ/A25.12.

³²⁵ Seasonal average for 183 days in summer season is up to 0.36%. This was based on 90 dBht (Species) range from the modelling for PTEC for possible strong avoidance, with 610m impact range for one device, therefore 11.7km² for 10 devices in 10 arrays.

³²⁶ MDZ/A25.12.

³²⁷ MDZ/A31.16.

³²⁸ MDZ/A28.11.

184. This was explained by Dr Learmonth in this way³²⁹. The entire MDZ area of 35km² represents 1.08% of SAC. But that said, the estimated maximum area taken up by all arrays, including spaces between devices would be up to 12.5 km² (35% of the MDZ array area of 35 km²) for the full 240MW capacity project. If underwater noise modelling impact ranges are applied as a “buffer” around the entire 35km² MDZ area, based on the highly precautionary 120 dB threshold preferred by NRW the position is you end up with the 35km² for the MDZ and a 1.3km buffer around the entire MDZ that measures 73.02km²³³⁰. That is to say 2.25 % of the SAC³³¹. This ultra-precautionary approach shows that the area of potential disturbance would not come anywhere near exceeding 20% of the area of the SAC at any given time or exceed an average of 10% of the seasonal area of the site over a season. As such there would be no significant disturbance of harbour porpoise and no AEOSI for the North Anglesey Marine SAC. No amount of further detailed modelling, even if it were possible, is thus necessary. It is clear that the percentage thresholds for significance which are set out in the conservation objectives could never be exceeded by what is proposed. NRW was, in other words, asking for more proof of something that is clear from the evidence. There is no merit at all in asking for further evidence of something that is clearly already established, but particularly so when in fact no more can be provided.

185. And, there is one further point that kills this off entirely. The concerns that Ms Morris continues to express are based on the full 240MW deployment. But the first phase is likely to be limited to around 10-12MW. Once in place the EMMP requires monitoring and further deployment will be contingent on the results. This is now agreed.

186. Sixth, the other issues raised by NRW with the detailed noise modelling that has been undertaken are of no merit. Dealing with each in turn³³²:

³²⁹ See further the note Potential for Underwater Noise from Operational Turbines to Significantly Disturb Marine Mammals MMC577 MOR-RHDHV-DOC-0168, Inquiry Doc – 045. NRW in Inquiry Doc-085 acknowledge the provision of this note, but then appear to simply fail to engage with the content of this ultra-precautionary assessment.

³³⁰ Taking into account the overlap with the land as otherwise the figure would be 75.71km.

³³¹ If you use the more realistic 142 B threshold this results in only a 70m “buffer”, and thus a total area of 37.23km, or 1.2% of the SAC.

³³² See POE021 Ms Morris Proof of Evidence at para 2.120.

- (i) NRW queried the source of the operational noise levels used: the position is that the outline source of the operational noise characteristics for the noise modelling are given in section 3.1.4 of the Underwater Noise Modelling Report³³³. References for these inputs were not given as the measurements are not formally published or publicly available – they are confidential. As noted above Subacoustech conducted the underwater noise modelling for the Morlais Project. The data used in the modelling of the operational turbines was taken from Subacoustech’s database which includes (i) an assessment of tidal current turbine noise (11m rotor, 350kW) at Lynmouth site and predicted impact of underwater noise at Strangford Lough; and (ii) measurement and assessment of underwater noise from the Openhydro tidal turbine device (250kW) at the EMEC facility, Orkney³³⁴. This is clearly the best available scientific information that has been used.
- (ii) NRW questioned whether deriving the source level of a large rotor device by scaling up from a small one is “realistic”: Dr Learmonth though has explained³³⁵ that:
- a. The assumption that the sound level of a large rotor device can be obtained by scaling up from a small rotor device is a worst case assumption based on Subacoustech data, with a simple line drawn between source levels of Subacoustech measurements of tidal turbines from Lynmouth and Orkney in order to extrapolate expected noise levels for Morlais, and this would produce precautionary noise levels;
 - b. Subacoustech have recently become aware of Risch et al. (2020)³³⁶ which presents measured noise levels for a 1.5 MW, 18m rotor diameter turbine. This is slightly smaller than the large turbine design at Morlais (24m dual rotor, output TBC) but more comparable than the earlier data from smaller designs. Risch et al. (2020, provided in Appendix 1) measured 138 dB SPL at ~60m. For the slightly larger turbines, Subacoustech modelled 140-145 dB at 60 m. Thus,

³³³ MDZ/A28.10.

³³⁴ See RPE004 Dr Learmonth’s Rebuttal Proof of Evidence at para 2.120.

³³⁵ See RPE004 Dr Learmonth’s Rebuttal Proof of Evidence at para. 2.121.

³³⁶ See RPE004 Dr Learmonth’s Rebuttal Proof of Evidence at App 1.

the projection relied on in the noise modelling appears reasonable, and indeed NRW have acknowledged that Risch supports Menter Môn 's position³³⁷.

- (iii) NRW questioned whether the modelling “adequately consider the multiple different device types with potentially different noise characteristics”: this has no merit because as Dr Learmonth has explained³³⁸:
- a. The modelling as based on 120 large or 620 small rotor turbines, a worst case, and the calculation of the noise levels from multi-device arrays uses a dedicated feature of the dBSea model;
 - b. Using this, the interaction of the complex sound field between multiple locations is calculated automatically;
 - c. The dBSea model developed by Marshall Day Acoustics and Irwin Carr Consulting is widely used as a tool for the prediction of underwater noise in a variety of environments by acoustic professionals, such as Subacoustech who undertook the underwater noise modelling for the Morlais site;
- (iv) The three solvers used by dbSea are based on codes widely used and tested within the underwater acoustics industry. They have been extensively tested against measured data and analytical solutions, validating the model.

(iv) ADDs

187. The use of ADDs are currently proposed as a potential mitigation measure to emit a sound designed to deter or alert marine mammals from coming into danger of collision with the devices³³⁹. At the RT it was helpfully confirmed by Ms Morris that NRW supported the use of ADD as mitigation for this scheme. This matter is also now resolved, as we understand it and agreed by NRW.

188. The following analysis may not now be necessary but is included for completeness.

³³⁷ EIC013, 27 November 2020, Annex 1 para. 55, albeit still querying how this was calculated or whether this represents a worst-case assumption.

³³⁸ See RPE004 Dr Learmonth's Rebuttal Proof of Evidence at para. 2.122.

³³⁹ See MDZ/P2 Dr Learmonth's Proof of Evidence at para 6.57.

189. The evidence is clear that ADDs have been proven to be effective as mitigation during unexploded ordnance clearance and piling for offshore wind farms and to deter seals from fish farms, where there is a requirement to ensure marine mammals are deterred from a wide area³⁴⁰.
190. The information on ADDs in Chapter 12 of the ES³⁴¹, the Marine Mammals Monitoring and Mitigation note³⁴² and the Underwater Noise Modelling Report³⁴³ has been provided to show the effectiveness of ADDs as mitigation and that they will be audible to marine mammals above ambient noise levels. It is important to note that this is the purpose for which the information is provided. NRW thus support ADDs as a way of deterring marine mammals from going near tidal devices but remain concerned that ADDs will “disturb” these creatures. This is an odd position given that it is the purposes of an ADD to disturb, and thus deter.
191. The issue arises in this way. The examples provided in the evidence indicated that in some studies on the Lofitech type of ADD – which is just one type of ADD - there has been a decline in harbour porpoise PAM detections up to 7.5km from the source³⁴⁴. This could thus be seen as a “worst-case” for the impact of an ADD, or the best case if your aim is to deter at a considerable distance. However, it is important to note: (i) the disturbance range of any ADDs deployed in the MDZ would be determined to the lowest source level possible that would ensure any marine mammal is beyond the range of potential collision risk, but without causing any significant disturbance or increased collision risk with other devices; and (ii) therefore, the disturbance ranges would be a lot smaller than the worst-case scenarios.
192. Careful consideration will be given to determine the most appropriate and effective type(s) of ADDs to ensure adequate and effective mitigation for all marine mammal species in and around the MDZ. This could include: (i) the modification or adaptation of existing ADDs and systems and / or the use of different types of ADDs; (ii) taking into

³⁴⁰ See MDZ/P2 Dr Learmonth’s Proof of Evidence at para 2.94.

³⁴¹ MDZ/A31.14.

³⁴² MDZ/A28.13.

³⁴³ MDZ/A28.10.

³⁴⁴ MDZ/A28.13.

account the different species hearing sensitivity; and (iii) ensuring that noise levels are high enough, in all environmental conditions to be audible over background noise levels at a distance to alert marine mammals and avoid collision with the tidal turbines, without causing any significant disturbance. Moreover, ADDs would only be activated for very short periods and intermittently. There would be no long term ADD activation over a wide area.

193. Assessments in the underwater noise modelling³⁴⁵ were conducted for the noise source levels of the Lofitech ADD (so a worst-case, in terms of disturbance, see above) and based on the 142dB threshold the impact range of this type of ADD is predicted to be up to 0.84km, an area of 2.22km² (0.07% of the North Anglesey Marine SAC (which has an area of 3,249km²)). For up to 10 ADDs the area would be up to 22.2km² (0.7% of the North Anglesey Marine SAC). For up to 40 ADDs the area would be up to 88.8km² (2.7% of the North Anglesey Marine SAC).

194. Dr Learmonth in the RT, in response to a question from Ms Morris, clearly explained why the assessments looked at 10 and 40 ADDs. 40 ADDs being the maximum number that would be deployed based on a worst-case scenario of 10 arrays³⁴⁶ with one ADD on each corner. 10 ADDs being the maximum number of devices that would on a worst-case ever be triggered at one time. Ms Morris then raised a new point as to whether the size of the arrays might mean that more than 4 ADDs were required (this as based on the deterrent range being 840m, rather than greater). The number of ADDs will depend on the size of the arrays, but also the ADD deterrence range, for example, if they have a low range then more ADDs might be required, but if they had a larger range then fewer ADDs would be required to adequately cover each array area. But assuming they just need to cover the turbines on the outer edge of the arrays, allowing marine mammals to be deterred no matter what direction and depth they approach arrays the assumption of 4 ADDs per array is reasonable.

195. Underwater noise modelling was also based on the Southall et al. (2019)³⁴⁷ weighted SEL criteria taking into account species hearing sensitivity, the maximum predicted range

³⁴⁵ MDZ/28.10 and MDZ/A28.11.

³⁴⁶ It could well be less.

³⁴⁷ POE049.

for temporary reduction in hearing sensitivity (“TTS”) could be up to 5.3km for harbour porpoise. However, it is important to note that: (i) this modelling is based on the high frequency noise levels of the Lofitech ADD, as a worst-case; (ii) as previously explained, the disturbance range of the ADDs would be determined to the lowest source level possible that would ensure any marine mammal is beyond the range of potential collision risk, but without causing any significant disturbance. Therefore, the noise levels modelled for the Lofitech ADD device would not be required for the MDZ, and really are worst-case.

196. Further assessments in the ES³⁴⁸ again used a worst-case assessment of up to 40 ADDs, based on a more realistic worst-case of 1km disturbance range for each ADD with no overlap, although as already noted it is highly, highly unlikely 40 ADDs would ever be activated at the same time. For up to 40 ADDs (up to 125.6km²) this would be up to 3.8% of the North Anglesey Marine SAC area, with a seasonal average of up to 4%.

197. In the Information to Support HRA³⁴⁹ up to 10 ADDs was assessed as a worst-case (1km range) for the maximum number of ADDs that could be activated at the same time³⁵⁰. The assessment for 10 ADDs (31.4km²) indicates potential disturbance of up to 1% of the North Anglesey Marine SAC (3,249km²), with a seasonal average of up to 1% (based on 183 days in summer season).

198. Therefore, the more likely worst-case for potential disturbance of harbour porpoise in the North Anglesey Marine SAC would not come anywhere even near exceeding the SNCB guidance for significance of noise disturbance against Conservation Objectives of harbour porpoise SACs (JNCC et al., 2020), of: 20% of the relevant area of the site in any given day, or an average of 10% of the relevant area of the site over a season.

199. NRW in its response to the further environmental information dated 27 November 2020³⁵¹ say that if the assessment was made on disturbance range of 7.5km the area of disturbance for 10 ADDs would be 1,770km² and 40 ADDs would be 7,080km². NRW

³⁴⁸ MDZ/A31.14.

³⁴⁹ CD MDZ/A27.11.

³⁵⁰ e.g. based on number of arrays.

³⁵¹ EIC013 at para 62.

recognise that this is unlikely due to the spacing, and configuration of the ADDs etc. But there is a more fundamental point. This is not even remotely realistic as a 7.5km disturbance range – the kind used for detonations – is not required for ADDs in the MDZ. NRW commented that there was no further information on which to base a more realistic assessment. But this is just incorrect because as outlined above a range of realistic yet precautionary scenarios have been presented.

200. As previously stated, the disturbance ranges of the ADDs would be determined based on noise levels that are high enough, in all environmental conditions to be audible over background noise levels at a distance to alert marine mammals and avoid collision with the tidal turbines, without causing any significant disturbance. Indeed, in Ms Morris' proof at para. 4.2.8 it is said that NRW "*advocates using an ADD with the lowest source level possible, enough to elicit a short-range avoidance of immediate danger of collision, whilst minimising wider disturbance impacts*". This would be the basis of the approach to determine the most suitable ADDs to be used at the Morlais site.

201. The details of ADD deployment, including configuration, which type of ADDs and how many will be developed in parallel with the final design. This needs to be tailored based on the type, number and array layout of the tidal turbines to ensure adequate and effective mitigation. In addition, developing the Detailed EMMP pre-construction will allow the latest technology and information to be taken into account. The options for triggering the ADDs will be researched and developed, based on automation of triggers from the monitoring techniques, such as active sonar, when a possible marine mammal is approaching close proximity and could be at risk of collision. This would be real-time triggers with back-up mechanism based on a precautionary approach, e.g. if it could be a marine mammal or it is unidentified then the mitigation would be triggered. Finally, as outlined in Ms Morris' proof at para. 4.2.8 NRW "*support the aspiration to use an automated 'detect and deploy' system using active sonar to trigger ADDs, thereby ensuring their deployment is limited to only when it is necessary*". The details will be agreed with NRW through the EMMP. As noted above provision is made for ADDs in the EMPP³⁵² in paras. 24, 25 and 51.

³⁵² MDZA/16.8, latest version in Inquiry Docs – 100, 101.

202. In conclusion, any concerns about the use of ADDs are not such as to justify not making the Order, and that is now agreed by NRW.

Ornithology

(i) Scope and context for the ornithology issues

203. There are a number of points that need to be made as regards the scope and context of the ornithology issues, all of which were explored in the cross-examination of Dr McCluskie³⁵³.

204. First, it is important to note that impact on birds is a matter that has been explored fully in discussions with NRW Advisory going back over a period of several years. Following this process NRW's Statement of Case and proofs do not seek to allege any adverse impact on birds as a result of the project. Indeed, a SoCG has been agreed between NRW and Menter Môn³⁵⁴ on ornithology. So, the Welsh Ministers can be advised that NRW, as the relevant statutory nature conservation body, do not have concerns with the potential impacts of the project in relation to ornithology. The ornithology issues were thus pursued only by the RSPB at the inquiry³⁵⁵.

205. Second, ornithology has been the subject of very detailed assessment by Menter Môn: see in particular MDZ/A31.9 – 13³⁵⁶. This work which has been accepted by NRW was led by Dr Grant, who was himself a principal conservation scientist at the RSPB for 18 years. Dr McCluskie, who gave evidence on behalf of the RSPB, accepted that Dr Grant was someone he held in high regard, who had an excellent publication record and whom he regarded as a "*very serious scientist*".

³⁵³ References to Dr McCluskie's proof below are to his amended proof (POE007.1) unless expressly indicated otherwise.

³⁵⁴ MDZ/L2.

³⁵⁵ With the support of some other third parties in writing e.g., NWWT – to which Dr Grant has responded in the appendices to his Proof of Evidence (MDZ/P1).

³⁵⁶ Note also that Dr Grant's evidence in chief began with a detailed overview of the assessment work undertaken to date in respect of birds.

206. Third, the issues pursued at the inquiry by the RSPB were related to potential impacts on two species - guillemot and razorbills – from collision³⁵⁷. No issues were pursued by the RSPB in relation to chough or Manx Shearwater³⁵⁸. The species in issue, as already discussed above, are not part of or associated with an SPA. Thus, any impacts on these species does not engage Reg. 63 of the Habitats Regulations, and it is not therefore necessary to consider AEOSI and the potential prohibition on consent that such effects give rise to. The fact is that the Habitats Regulations have no bearing at all on these species³⁵⁹. The species in issue are associated instead with the Holy Island Coast SSSI. However, while they are part of a breeding seabird colony identified as contributing to the special interest of this site and which should be maintained, neither species are identified as interest features for the site’s designation³⁶⁰. The protection afforded to these species by the legislation is thus far less than for mammals. Phase One of the project has, as we know, limited any deployment to a scale low enough to avoid the impacts on marine mammals and inevitably this will also avoid predicted impacts on the far less protected and vulnerable seabirds.

207. Fourth, there is agreement by all parties that the proposed Phase One of the development will not have a significant effect on guillemot and razorbill³⁶¹. The relevant modelling note *Marine Ornithology Collision Risk Modelling Note*³⁶² (the “**ornithology modelling note**”) predicts minor adverse effects – a low magnitude of impact – on these birds; an assessment from which neither NRW nor RSPB in the end dissented.

³⁵⁷ Dr McCluskie accepted in XX that displacement and barrier effects were not the issue, nor were any other effects. Moreover, while Dr McCluskie’s proof raised the issue of above surface collision in XX he accepted that it was sub-surface collision that was the real issue. See further Dr Grant’s rebuttal at paras. 2.3 and 2.4 and his evidence in chief. Moreover, above surface collisions were scoped out of the ES and this was not questioned by the RSPB. In his evidence in chief Dr Grant explained that any displacement effects were likely to be small.

³⁵⁸ As Dr McCluskie confirmed in his evidence in chief. These bird species and any impacts on them is covered for completeness in the proof of Dr Grant and in his appendices responding to NRW, RSPB and the NWWT.

³⁵⁹ Guillemot are listed in Annex I of the Birds Directive, razorbill are not: see Dr McCluskie’s proof at paras. 3.15 and 3.21, but the obligations in relation to such bird species is under Article 4 of the Birds Directive to create SPAs. The birds in issue are though not part of or associated with any SPA. Dr McCluskie rightly accepted that this was so in XX.

³⁶⁰ See MDZ/P1 Dr Grant’s Proof of Evidence at para 4.4, POE007.1 Dr McCluskie’s Proof of Evidence at para. 3.12 and Dr McCluskie’s answers in XX.

³⁶¹ See NRW’s response at FEI REP004 p. 9 of 23, para A.29; see POE007.1 Dr McCluskie’s Proof of Evidence at para 8.1 and his answers in evidence in chief and XX.

³⁶² MDZ/A31.10.

208. Fifth, this initial deployment and any further deployment is to be strictly controlled, and will depend on the results of monitoring to be undertaken, further modelling etc. This process will be subject to the submission of a Detailed EMMP in accordance with the Outline EMMP and containing matters specified in that condition – secured both in the ML and as one of the Schedule 1, Part 4 documents³⁶³. This process was enough to persuade NRW that it need not pursue at the inquiry any objection based on the risk of AEOSI from collision risk on highly protected marine mammals³⁶⁴, and it does the same for the lesser protected seabirds in issue.

209. Sixth, the RSPB says that it believes that climate change is the most pressing threat to the UK's wildlife and that renewable energy has an important role to play in countering that threat³⁶⁵. But Dr McCluskie says that the RSPB will still, despite this, oppose renewable energy if it judges the proposed location to be inappropriate and to risk significant damage to sites or species³⁶⁶. The threat posed to seabirds by climate change is acute. Thus, the ES records that “[c]limate change is likely to be the strongest influence on seabird populations in coming years, with anticipated deterioration in conditions for breeding and survival for most species of seabirds ... Further declines in numbers of many UK seabird populations are therefore anticipated in the short, medium and long term under a scenario with continuing climate change due to increasing levels of greenhouse gases in the atmosphere”³⁶⁷. Moreover, the report by Furness et al³⁶⁸ is clear that despite the uncertainties: (i) “there is a very strong consensus in the published literature that these wet renewables technologies are unlikely to represent as great a hazard to seabirds as posed by offshore wind farms” and (ii) that “[t]he relatively low risk to seabirds from wet renewables also contrasts strongly with the high impact on seabird populations resulting from depletion of fish stocks by global fisheries ... and potentially from climate change ...” . And, as Dr McCluskie accepted the potential locations for tidal energy are far more limited than for wind³⁶⁹, with the location of the MDZ being one of

³⁶³ See Inquiry Doc - 90 and Inquiry Doc - 102.

³⁶⁴ See Inquiry Doc - 85, section 1.

³⁶⁵ See POE007.1 Dr McCluskie's Proof of Evidence at para 3.3 and his answers in XX. See also Chapter 11 of the ES (MDZ/ A31.11) at para. 39 and Mr Bell's proof at para 6.3.3 quoting from UK national policy – the importance of the contents of both of which Dr McCluskie agreed in XX.

³⁶⁶ Ibid.

³⁶⁷ See MDZ/ A31.11 at para. 39.

³⁶⁸ Relied on heavily by Dr McCluskie in POE007.1 his Proof of Evidence , see e.g., paras. 3.20 and 3.24.

³⁶⁹ As Dr McCluskie accepted in XX the ability to guide development of renewables to areas where there are least impacts on the natural environment (see his proof at para. 1.3) is far more limited with tidal given that geography dictates its location very strongly.

only three locations around the UK adjudged by The Crown Estate to be especially suitable for such a demonstration zone³⁷⁰.

210. Seventh, Dr McCluskie relies heavily on Furness et al and their conclusion that guillemots and razorbill are of high vulnerability in relation to tidal turbines. But he accepted in cross-examination that *“this should not be taken as evidence of established impacts of tidal devices on these species. Rather, Furness et al. (2012) provide a classification based upon such factors as the extent to which the behaviours and habitat preferences of different species mean that they are likely to coincide with, and be exposed to, such devices, so that it identifies those species for which there is likely to be greatest need to investigate potential impacts”*³⁷¹. Moreover, as we have seen overall Furness et al considered the risk to seabirds was relatively low and less than for windfarms.

211. Eighth, Dr McCluskie’s evidence pointed (rightly) to the fact that *“[w]hile there have been several studies of collision risk with both onshore and offshore wind turbines there is little information on ... sub-surface collisions with tidal turbines, largely due”*³⁷² to the few devices in place”. The RSPB thus set up a familiar chicken and egg type problem: (i) we have limited information on the interaction between tidal turbines and diving birds largely due to the lack of deployment; (ii) this can only be overcome by allowing more deployment; (iii) this Order which seeks to deploy further turbines but in a phased and controlled way and to monitor these should be refused. Why? Because of the existing lack of information on impact on seabirds. There is only one way to break this vicious circle and that is: (i) to consent and deploy tidal devices initially at a small scale; (ii) to monitor such deployment; and (iii) to only allow any further deployment if the result of the monitoring allows regulators to conclude that such can occur without adverse impacts. This is what is proposed here. The logic of Menter Môn’s approach - which relies on phasing and adaptive monitoring and management - is inexorable.

212. Indeed, Dr McCluskie says *“I fully support the vital monitoring and research that is proposed, if achievable, as it would increase our understanding of how seabirds interact with, and*

³⁷⁰ See Dr McCluskie’s answers in XX, and see above re Dr Orme’s evidence on these issues. RSPB’s counsel was present when Dr Orme gave his evidence and did not challenge any of his evidence on these points.

³⁷¹ See RPE010 Dr Grant’s Rebuttal Proof of Evidence at para. 2.5, his evidence in chief and Dr McCluskie’s answers in XX.

³⁷² See POE007.1 Dr McCluskie’s Proof of Evidence at para. 5.1 and his answers in XX.

are impacted by, tidal devices. The evidence that could be gathered, if this proposal was to go ahead would provide much needed clarity on how, and if, this technology can be deployed, increasing certainty for developers and investors whilst ensuring that both nature and the environment is protected³⁷³.” This is a welcome if belated recognition by the RSPB of some of the benefits of this project. Dr McCluskie then says³⁷⁴ “[a]n example of a good Adaptive Management Agreement is the tidal energy development in the Pentland firth, “Meygen”, where the Scottish Government’s consent was conditional on a limited initial phase development with full and detailed monitoring and all subsequent stages being subject to the prior written approval of the Scottish Ministers”. In cross-examination I put to Dr McCluskie that this is precisely what is proposed here. In response he floundered badly. He ended up, both in cross-examination and re-examination, trying to argue that the material difference between Meygen and the present case was that here the further approvals would be by NRW, and in the Meygen case by Ministers. For some unexplained reason Dr McCluskie clung on to this idea that approval by Ministers was in some unspecified way better than approval by NRW. But unless RSPB are disputing NRW’s competence – and it is strongly denied by RSPB that they are – this is a truly hopeless point. RSPB’s position was laid bare in re-examination. The vicious circle it was said could be broken instead by applying only for a first phase and monitoring that and then applying for a separate consent thereafter based on the monitoring. But that is materially different from what is proposed here in only one regard, and that is the identity of the decision-maker for the later phases. RSPB’s apparent distrust of NRW is the only thing that can lie behind this.

213. Ninth, the only other issue raised by Dr McCluskie, and the RSPB, in this context is the complaint made that the phases are not set on the face of the Order and do not specify limits on the number of arrays, depths, type etc. such that they are “*limited and immovable*”³⁷⁵. In re-examination it was suggested that Meygen was also different in this regard with Annex 1³⁷⁶ specifying the maximum number of turbines and their size. But this is a bad point because: (i) the ES in chapter 4 sets the PDE which is consented and does contain a number of device limits and which are secured by the Order; (ii) Meygen were seeking to deploy their own technology that they had developed, it was not a MDZ

³⁷³ See POE007.1 Dr McCluskie’s Proof of Evidence at para. 8.4.

³⁷⁴ Ibid.

³⁷⁵ See POE007.1 Dr McCluskie’s Proof of Evidence at para 8.5.

³⁷⁶ Inquiry Doc - 083.

that seeks flexibility for a range of developers and devices; and (iii) in any event as regards what is proposed here Dr McCluskie's own evidence is that "[i]t has been explained to me that the current proposed EMMP submitted to the Marine Licence application does address some of these concerns by way of inclusion of a 'Stop' clause and also a 'Removal' clause should an impact, significant or otherwise, be noted through agreed monitoring results." These clauses have also now been included in the Outline EMMP submitted to this TWAO process.

214. Finally, by way of context two points:

- (i) First, what ultimately emerges from the evidence of Dr McCluskie is that he is concerned as to the effectiveness of, and ability to undertake, any monitoring³⁷⁷. He accepted that if this was something he could be satisfied on then RSPB's objections would very largely fall away³⁷⁸. The issues around monitoring are considered below but what is clear is that:
 - a. Under the Outline EMMP no devices may be deployed unless the regulator is satisfied that there can be effective monitoring (see para. 8 of the EMMP);
 - b. Thus, if Dr McCluskie's concerns on the efficacy of monitoring were justified, (and they are not), then there would be no deployment as the regulator would not approve this;
 - c. There are multiple options for monitoring, including of collisions (see below). Some of the technology has advanced considerably in the last 10 years driven by the deployment of offshore wind (e.g. on tagging technology such as GPS, TDR etc), and there is no reason to think it will not continue to develop;
 - d. Indeed, Dr McCluskie accepted³⁷⁹ that the making of this Order will act to incentivise the market to improve monitoring as it will be key to unlocking further deployment up to 240MW;
 - e. There are indeed already a small number of operational tidal devices in operation in the UK where monitoring using tagging, video and sonar is actually taking places: e.g., Meygen and Bluemull Sound. There is a growing evidence base in respect of this and which shows at least some level of initial success: see below.

³⁷⁷ See POE007.1 Dr McCluskie's Proof of Evidence at para. 8.6 "*without effective monitoring and safeguards I remain concerned about potentially significant impacts on the bird populations using the Application area*".

³⁷⁸ See Dr McCluskie's answers in XX.

³⁷⁹ See Dr McCluskie's answers in XX.

- f. There is no evidence anywhere in the World of a bird ever having collided with a tidal device – the risk remains a theoretical one;
- g. Even without a way of monitoring individual collisions between birds and turbines (assuming, of course, there are, any) there are a number of other well-established methods of monitoring any impacts on bird populations e.g., colony counts (see below);

(ii) Second, in Dr McCluskie's original proof he stated³⁸⁰ "*it is therefore apparent that the Applicant should, at very least, seek to submit a detailed EMMP to sit alongside the Order which allows scrutiny at this stage and that sets out an effective and achievable monitoring strategy. This should then be updated and amended prior to each deployment Phase and subsequently submitted to Welsh Minister for scrutiny and approval to ensure an effective mitigation strategy, in the same way that it is proposed for the Marine Licence*". This paragraph was deleted in the amended proof. When I asked Dr McCluskie why he had deleted this he was unable to give any answer. There can only be one reason why it was deleted and that is because Dr McCluskie realised that what he was suggesting should happen is in fact precisely what is in fact proposed. That did not fit with RSPB's relentless and, we say, wholly unjustified opposition to the project and so it was cut³⁸¹.

(ii) The modelling of the potential impacts

215. It is necessary to consider now the modelling work undertaken to assess the impact on non-SPA birds and the issues that RSPB, but not NRW, pursue in this regard.

216. First, as already noted Dr McCluskie accepts that the proposed scale of deployment at Phase One will not have a significant effect on these species. But despite this Dr McCluskie raises some issues with the assessment which is contained in the ornithology modelling note, MDZ/A31.10. The issues he raises in this regard are as baseless as they are footling. The key points are these:

³⁸⁰ See para. 8.10 in the POE007 original unamended proof.

³⁸¹ Note that the tracking used for additions in the amended proof did not track deletions.

- (i) The scale of deployment for Phase One is limited by the 0.7 bottlenose dolphin PBR, and will be very small (between 4 and 21 devices, 5 – 12 MW); see above and see MDZ/ A31.13. This looks at a number of potential devices and fixes a set MW for each, and then models the maximum number of each that could be deployed to come in under the 0.7 bottlenose dolphin PBR (see above);
- (ii) In the ornithology modelling note³⁸² because the number and type of devices is unknown it selects the worst case devices for razorbill and guillemot so device 3F and 6S³⁸³ respectively;
- (iii) It then models the collision estimates based on these worst cases: see Table 3-1 in MDZ/ A31.10 (with the outputs of the PVA analysis associated with these collision estimates in Tables 3-2 to 3-5);
- (iv) These impacts as modelled, it is accepted by Dr McCluskie, do not give rise to significant effects;
- (v) Dr McCluskie make three complaints about this modelling (which he accepted is predicated on a worst case approach):
 - a. He complains that there is postulated to be a linear relationship between MW of deployment and impact and this is unproven and unlikely to be correct: but this point is a bad one, as he accepted³⁸⁴, because: (i) there is a linear relationship in the modelling between number of devices and collisions³⁸⁵; and (ii) there is a fixed MW rating output for each type of device so that MW and number of devices is thus fully interchangeable in this respect and the relationship is linear;

³⁸² MDZ/ A31.10.

³⁸³ In the mammal modelling note (MDZ/ A31.13) these are labelled devices 2a and 5b – see Table 2-1 in MDZ/ A31.13.

³⁸⁴ See Dr McCluskie's answers in XX:

"Q: In relation to that – when we assess the devices in the modelling notes, each device has a set MW.

A: Yes

Q: So it doesn't matter whether one looks at it in terms of numbers or MW – they're interchangeable

A: They're interchangeable if there are whole devices. It's the necessity for realism in the assessment. It's not realistic to have parts of assessments. 0.89 of a device ..."

³⁸⁵ Dr Grant explained this in his oral evidence in detail. If you have 5 devices – 3 of type A and two of type B the model is additive it takes 3 x A and 2 x B. That is how the models work.

- b. He complains that the modelling looks at part of a device: this point is, if anything, even worse than the first one. As Dr McCluskie accepted his objection was predicated on no more than an in principle objection related to the complexity of such modelling. He accepted this point: (i) was “academic”, (ii) unsupported by anything in the EIA Regulations or guidance; (iii) made no difference at all to the assessment, and (iv) that in fact, if anything, it made the assessment undertaken even more worst case³⁸⁶.
 - c. He complains that because the devices ultimately deployed may be different to those assessed, and because the overall limit for Phase One, is based on the 0.7 PBR for bottlenose dolphins the predicted effect on birds might be greater: but in his oral evidence Dr McCluskie accepted that this point fell away given that it was clear from the EMMP that prior to deployment of Phase One there would be modelling of the impact of the specific devices to be deployed in terms of both impacts on birds and mammals: see the EMMP at para. 39³⁸⁷. And there is a further point namely that the ornithology modelling note assumes a worst case for guillemots and razorbills in terms of the devices deployed;
- (vi) Thus, on the basis of these somewhat footling and very largely academic points Dr McCluskie says³⁸⁸ “... my examination of the further information supplied by the Applicant has demonstrated and absence of robust calculations for the reduced impact scenarios. I therefore continue to base my conclusions on the results of the Applicant’s modelling of the 240 and 40 MW scenarios” and indeed the majority of his written evidence focusses on this.

³⁸⁶ See Dr McCluskie’s answers to your questions Sir:

“Q: But what is of interest to Mr Maurici, and me, is what difference does it make. If the inquiry is concerned with assessing possible effects of the worst proposed. And modelling goes beyond those 5 units that could be in possession, why is the assessment not appropriate? Why would it not give the Welsh Ministers a realistic assessment of the potential effects of the scheme?

A: In part it’s a point of principle that because we deal with so much modelling I’m very keen to introduce realism. This is a step away from physical realism.

Q: Right but for the purpose of the inquiry – I understand the wish to keep the modelling as close to the real position as possible, but if that goes to the point of greater assessment and safety, where is the problem?

A: Other than the academic argument that should be as real as possible.

A: Outwith the argument that it should be as realistic as possible, it isn’t a problem. But applicant goes on about how much precaution is in the assessment, and precaution is being introduced unnecessarily here.”

See also Dr Grant’s rebuttal at para. 4.20.

³⁸⁷ See Inquiry Docs – 100 and 101, and Dr McCluskie’s answers in XX.

³⁸⁸ See POE007.1 Dr McCluskie’s Proof of Evidence at para. 5.46.

217. Second, this leap is in any event wholly unjustified. It makes no sense on any basis. It frankly undermines the credibility of Dr McCluskie's evidence as a whole. What is proposed here is the deployment of a small initial phase far smaller than the 40MW or 240MW assessed in the ES. These larger phases will never be allowed to deploy unless the monitoring of Phase One establishes that the harm will not be at the level very conservatively predicted – and with no mitigation assumed – in the ES. To say that because he has some (ill-founded) concerns with the assessment of the Phase One deployment the RSPB will instead focus on the unmitigated effect of the larger deployments, ignoring the EMMP is a nonsense approach.

218. Third, Dr McCluskie's proof in assessing the potential impacts on razorbills and guillemots is thus focussed on the 40MW and 240MW assessments in the ES³⁸⁹. His proof thus states that “[w]ith the 240 MW proposal the Applicant's own calculations predict that the guillemot population of South Stack and Penlas, using 95% Avoidance Rate, would be 2.4%, of the level it would be in the absence of the development, (i.e., a reduction of 97.6%) after 25 years, and using 98% Avoidance Rate would be 40.5% of the level it would be in the absence of the development. For razorbill, the Applicant's own calculations predict the population of South Stack and Penlas would be reduced to zero (i.e., extirpated) using 95% Avoidance Rate³⁹⁰”. The same thing was said by the RSPB in opening and in the media on the first day of the inquiry. While this all makes for a useful soundbite for the RSPB and its cause these statements are highly misleading given that:

- (i) These figures are based on what is a highly precautionary analysis (see below), which in some respects Dr McCluskie in cross-examination “complained” was too precautionary(!);
- (ii) These figures ignore entirely the EMMP and any phasing, mitigation and other controls;
- (iii) There is accordingly no real-world scenario where deployment would be allowed up to anywhere near 240MW if this sort of level of effects were found to occur as a

³⁸⁹ See POE007.1 Dr McCluskie's Proof of Evidence at paras. 5.25 -5.37.

³⁹⁰ The issue of avoidance rates is considered below, but suffice to say it is Dr Grant's evidence that a 95% avoidance rate is itself highly precautionary.

result of the post Phase One monitoring³⁹¹, so long as NRW is acting competently as regulator. Moreover, of course, the Advisory Group (which RSPB has been invited to join) would act as a filter to prevent such a position even being put to NRW for decision.

219. Fourth, the collision modelling that has been undertaken is in a number of regards highly precautionary:

- (i) **The level of nocturnal diving is assumed to be 90% of daytime which is likely to be an overestimate of at least at the upper end of what is likely³⁹²:** Dr McCluskie accepted that this aspect of the assessment was “precautionary but realistic”³⁹³;
- (ii) **Dive depths have been assumed to be the same at night as they are in the day even though the evidence shows night dives to be shallower³⁹⁴:** Dr McCluskie accepted that this was “appropriately precautionary”³⁹⁵;
- (iii) **All collisions have been assumed to be fatal: Dr McCluskie again accepted that this was precautionary³⁹⁶,** as there is with tidal quite a strong prospect that if there ever was a collision it would be sub-fatal;
- (iv) **The ornithology modelling note assumes a worst case for each species in terms of device type and looks at non-whole numbers of devices above what could actually be deployed:** see above, Dr McCluskie bizarrely suggested this was “unnecessarily precautionary” – not a complaint I thought we’d ever hear from the RSPB.

220. Fifth, the PVA analysis undertaken is also highly precautionary because:

³⁹¹ In re-examination Dr Grant indicated that given the controls to be imposed on the ML and the Outline EMMP the prospects of these impacts ever coming about was “*Highly unlikely, and shouldn’t happen*”.

³⁹² See MDZ/P1 Dr Grant’s Proof of Evidence at para. 6.24 and RPE012 Dr McCluskie’s Rebuttal Proof of Evidence at para. 7.

³⁹³ See Dr McCluskie’s answers in XX.

³⁹⁴ See MDZ/P1 Dr Grant’s Proof of Evidence at para. 6.24.

³⁹⁵ See Dr McCluskie’s answers in XX.

³⁹⁶ See MDZ/P1 Dr Grant’s Proof of Evidence para. 6.25 and Dr McCluskie’s answers in XX.

- (i) *“they have used starting population-sizes for the South Stack and Penlas guillemot and razorbill populations which are considerably smaller than as currently estimated. Thus, the more recent estimates of the colony population sizes are 75% and 34% higher for guillemot and razorbill, respectively (ES Chapter 11, vol. 3 – Appendix 11.3 This will act to reduce the effect of the predicted impacts as determined by the counterfactuals of the population growth rate and population size, with the reduction likely to be considerable in the case of guillemot”*³⁹⁷: The RSPB disputed this:
- a. The only point put to Dr Grant in cross-examination on this was that this would make little difference given the extent of the impacts assessed in the ES. He comprehensively refuted this³⁹⁸;
 - b. Dr McCluskie in chief argued that if a higher starting population size was used for the PVA analysis this had to be carried through into the modelling with the result that more birds meant more collisions. Dr McCluskie’s evidence on this point appeared to misunderstand what had in fact been done in the assessment but as this point was never put to Dr Grant in the end little, if any, weight can be attached to it;
 - c. What was agreed by Dr McCluskie in cross-examination was that:
 1. the baseline surveys undertaken between November 2016 – October 2018 were appropriate and undertaken in accordance with industry standards³⁹⁹;

³⁹⁷ See MDZ/P1 Dr Grant’s Proof of Evidence at para. 6.26.

³⁹⁸ Having referred to what is said by Dr Grant in his proof at para. 6.26 Ms Lean cross-examined as follows:

“Q: This may be true as a matter of mathematics but it doesn’t mean you’re going to end up with a different level of significant effect just because you’ve got a difference in the numbers

A. It could do. It won’t in this case because there is no significant effect. If you start with 2,000 birds, and assume mortality of 20 p/a, and come to conclusion a significant effect. If you start 4,000 birds and do same work you might find it changes assessment conclusions. Collision mortality is expressed relative to population size and so starting population size is key. In this case I estimate (I haven’t don’t the modelling, this is an informed guess), where you have - compared to what we’ve done - if you were to do same PVA same collision estimates, but with a starting population that’s 75% higher, you almost half the scale of the impact – c. 40% or so. So starting point is a key part of this process

Q: Is that in relation to the 0.7 we’re talking about?

A: Yes, but the same applies to 40MW and 240MW deployments. PVAs are based on the same – and by the same scale and magnitude. SO same starting pop sizes used in PVAs for 40MW, 240MW, 0.7pba deployment. That would, in the case of guillemots, redoing PVA with larger population size could affect conclusion. Might bring it down from major adverse to moderate adverse in 240MW. I am saying it could, you’d have to do it to find out. It would improve the assessment for scale of effect on the birds.”

³⁹⁹ See MDZ/P1 Dr Grant’s Proof of Evidence at para 5.2 and Dr McCluskie’s answers in XX.

2. The starting population sizes used for PVAs relied on the most recent colony count data available at the time the modelling was undertaken. This comprised 2018 data from some sections of the colony but other sections used 2016. However, the higher (current) population sizes for the colony referred to in Dr Grant's Proof of Evidence represent the estimates as based upon the complete 2018 data (i.e., for all sections of the colony). So, the higher estimates of the population sizes are contemporary with the baseline survey data, such that the baseline data are representative of those population sizes.
3. the application of a K factor⁴⁰⁰ to the colony count data to give a starting point population estimate followed the recommended method for converting counts of guillemots and razorbills at the colony to actual population sizes. This is also agreed in the statement of common ground with NRW.⁴⁰¹
- d. Dr McCluskie implied under cross-examination that the k-factor should also have been applied to the baseline survey data. However, as was put to him, this is incorrect. The methods used to collect and analyse the baseline survey data followed recommended industry guidance (as he agreed), which does not involve the application of any such factor.

- (ii) **The assessment used density independent population models and did not take account of compensatory mechanisms for which there is clear evidence of these being widespread in auk populations and in seabird populations more generally⁴⁰²; This was the subject of much dispute based on the Horswill et al paper⁴⁰³, and a debate around whether the evidence supported compensatory or depensatory mechanisms in such populations. The key points are:**
- a. Horswill et al reviewed 89 studies on the issue in seabirds and found evidence of compensatory mechanisms in 67 of 89 of those;
 - b. 15% of those 67 papers (so 10) related to auks⁴⁰⁴;

⁴⁰⁰ Which Dr McCluskie seemed to be critical of in evidence in chief.

⁴⁰¹ MDZ/L2 p. 22-23

⁴⁰² See MDZ/P1 Dr Grant's Proof of Evidence at para. 6.27.

⁴⁰³ Inquiry Doc - 082.

⁴⁰⁴ See p. 1409.

- c. In relation to recruitment (5 papers), population growth (3 papers) and survival⁴⁰⁵ (2 papers) compensatory mechanisms were found to be present in auk populations⁴⁰⁶ and it was only in relation to productivity that papers pointed to depensatory factors for auks (2 papers);
 - d. Of the relevant factors “survival” is self-evidently an important one⁴⁰⁷ and Horswill et al say that “[t]he evidence for compensatory regulation of survival was mostly noted in studies of ... auks ...”⁴⁰⁸;
 - e. Horswill et al say that “[i]n the context of offshore wind farms, compensatory mechanisms may allow some losses from the breeding population to be ... This potentially includes cormorants, skuas and auk”⁴⁰⁹;
 - f. Dr Grant in his evidence in chief explained that where depensatory factors were found this was consistently associated with populations at already low densities, and Horswill et al considered it relevant to depleted populations and endangered species. Dr Grant’s view was that this did not apply to the relevant populations at South Stack and Penlas because these are relatively large, numbering approximately 12,000-13,000 guillemots and 2000 razorbills, and the available data suggests increasing numbers in recent years. Thus, he did not consider density depensatory mechanisms to be important in this context. Dr McCluskie’s only riposte was to say that this could be relevant if the impacts were as per the unmitigated 240MW deployment assessed in the ES. But as already explained these impacts will never actually occur.
- (iii) The assessment assumed a closed population with no immigration or emigration which is a biological simplification and likely to cause an overestimate of impacts⁴¹⁰. Dr McCluskie accepted that this was precautionary albeit that the scale of over estimation of impacts could not be determined⁴¹¹.

⁴⁰⁵ Dr McCluskie accepted that this was a strong factor in auks as they were a long-lived species: see his answers in XX. The relevance of being long-lived species is that it means that population trends are most sensitive to changes in survival rates.

⁴⁰⁶ See Table 1, p 1409.

⁴⁰⁷ As Dr McCluskie accepted in XX.

⁴⁰⁸ P. 1410.

⁴⁰⁹ P. 1411.

⁴¹⁰ See MDZ/P1 Dr Grant’s Proof of Evidence at para. 6.27.

⁴¹¹ See Dr McCluskie’s answers in XX.

221. Sixth, there is no dispute between the parties that despite the inability to validate the models because of a lack of data resulting from lack of deployment the best way to assess collision risk with tidal devices is by using the CRM and ERM models⁴¹². These are two of the three models recommended by SNH⁴¹³. NRW recommended the use of these models here, and they were used⁴¹⁴.

222. Seventh, there was inevitably an attempt by the RSPB to make something of the error in the modelling discovered in late 2020. Dr Grant though explained the very subtle nature of the error and that it was he who spotted it⁴¹⁵. The error made a marginal difference to the assessment⁴¹⁶. In no way does this undermine the confidence in the modelling work done to date or that which will come later on. Despite having had all the data for some months now the RSPB were unable to identify a single further error in the modelling.

(iii) The PDE/adaptive management issues

223. Dr McCluskie's proof makes clear that among the RSPB's key issues was the use of a PDE and adaptive management⁴¹⁷. These issues are dealt with above in more detail but the following short points can be made:

- (i) The RSPB has no in principle objection to the use of a PDE for consenting tidal energy projects⁴¹⁸;
- (ii) The use of both a PDE and adaptive management is supported by NRW in published papers⁴¹⁹;
- (iii) To the extent that a complaint is made that the PDE is not properly defined in respect of this project this view has been rejected by PINS⁴²⁰;

⁴¹² See MDZ/P1 Dr Grant's Proof of Evidence at para. 8.8, see MDZ/F15.2 at p. 10, 2nd paragraph and Dr McCluskie's answers in evidence in chief and XX.

⁴¹³ See MDX/F19.

⁴¹⁴ See MDZ/P1 Dr Grant's Proof of Evidence at para. 8.8 and Dr McCluskie's answers in XX.

⁴¹⁵ See Dr Grant's answers in XX and re-examination.

⁴¹⁶ See Dr Grant's evidence in chief.

⁴¹⁷ See POE007.1 Dr McCluskie's Proof of Evidence at paras. 4.1, 4.2 and 8.5 and his answers in XX.

⁴¹⁸ See Dr McCluskie's answers in XX.

⁴¹⁹ See MDZ/F15 and also MDZ/K1 and Dr McCluskie's answers in XX.

⁴²⁰ See MDZ/E10, para. 15.

- (iv) NRW has endorsed the use of a PDE and adaptive management both generally for tidal projects and in respect of this project in particular⁴²¹;
- (v) NRW has satisfied itself that “securing the DEMMP (and the specified details required), based on the OEMMP, via a condition on the draft marine licence”⁴²² is sufficient to give it assurance that there will be no AEOSI on marine mammals and these are far more protected than the bird species in issue⁴²³. NRW are also apparently content with the Outline EMMP as regards birds.

224. Despite complaints made by the RSPB that the Outline EMMP⁴²⁴ gives insufficient protection to birds, in fact there are multiple protections contained within it. Thus:

- (i) The commitment of Menter Môn to safeguard the environment explicitly includes diving seabirds (para. 5);
- (ii) Device deployments will only be allowed at scales at which NRW agree that the best available scientific understanding does not predict adverse impacts upon non SPA populations of diving seabirds from local colonies (see para. 7);
- (iii) No device operation will be allowed until NRW is satisfied that effective monitoring is in place that can directly inform the implementation of the EMMP, and inform the agreed aims, objectives and management questions set by the EMMP for the project (see para. 8). And the aims (see para. 75); the objectives (see para 76) and the monitoring questions (see Table 2-2) all feature the protection of non-SPA birds;
- (iv) One of the main purposes of the EMMP is to avoid significant effects on non-SPA diving birds from local colonies (see paras. 18, 30); and another is to collect data on birds so as to update the collision risk modelling (see para. 21);

⁴²¹ See MDZ/F15, MDZ/K1 and MDZ/L2 p. 5 para 21 – and see Dr McCluskie’s answers in XX.

⁴²² See Inquiry Doc - 085 point 1.

⁴²³ See Dr McCluskie’s answers in XX.

⁴²⁴ Inquiry Docs – 100 and 101.

- (v) Phase One is explicitly stated to be determined in due course by the outcome of modelling for, inter alia, seabirds (see para. 39);
- (vi) There is considerable provision in the Outline EMMP on monitoring and mitigation in relation to seabirds: see paras. 58, 61, 62 – 63, 67, Table 1-1, 76 (both bullets), paras. 77 – 78, 84 – 87, 100, Tables 2-1 and 2-2, para. 139, Table 4-1, paras. 153, 159 and 167 -169. Moreover, the outline EMMP proposes that RSPB be on the Advisory Group.

(iv) The remaining assessment issues

225. Given all the above, Dr Grant was correct to suggest that many of the detailed assessment issues raised by Dr McCluskie are perhaps of somewhat marginal significance⁴²⁵. This is particularly so given that the ES assesses the unmitigated impacts of a 40MW and 240MW deployment in respect of guillemot and razorbill as in a number of respects to be “*major adverse*”⁴²⁶; that is to say the highest level of significance of impact there is in the ES⁴²⁷. Given this even if Dr McCluskie was correct in respect of any of the criticisms he makes, and he is not, it would not change⁴²⁸ the overall level of assessed significance⁴²⁹. Turning then to the issues.

⁴²⁵ See Dr Grant’s evidence in chief.

⁴²⁶ See RPE010 Dr Grant’s Rebuttal Proof of Evidence at para. 4.23, ES chapter 11 (MDZ/A31.11) at paras. 176 – 177 and Dr McCluskie’s answers in XX. It should also be noted that for the 40MW deployment, the effect on guillemots is “*moderate adverse*” – see MDZ/A31.11 at para. 177.

⁴²⁷ See MDZ/A25.5 ES Chapter 5 at p. 18.

⁴²⁸ Dr Grant in his evidence in chief said that while not underplaying the importance of the technical details being correct that in many ways Dr McCluskie’s issues with the assessment were academic given the overall assessment made of the unmitigated impacts of 40MW and 240MW.

⁴²⁹ Dr McCluskie in XX sought to deny this saying the effects could be greater, but given that he characterises the unmitigated effects as extirpation it is not clear how that is so. Dr McCluskie’s only suggestion was that extirpation may result sooner. It rather puts one in mind of the following scene in *The Life of Brian*:

“Centurion: You know the penalty laid down by Roman law for harbouring a known criminal?

Matthias: No.

Centurion: Crucifixion.

Matthias: Oh.

Centurion: Nasty, eh?

Matthias: Hm. Could be worse.”

226. First, Dr McCluskie argues that the SNH guidance requires that a full range of avoidance rates (0-99%) must be both presented *and applied*⁴³⁰ in any assessment. However, the position is that:

- (i) The SNH guidance (properly read) requires that a full range of rates be presented but not necessarily applied to the assessment⁴³¹;
- (ii) The SNH guidance also recognises that ultimately which avoidance rate to apply is a matter of professional judgment⁴³²;
- (iii) It is not disputed that the ES and the ornithology collision modelling note⁴³³ set out the full range of results, the complaint is that a narrower range of avoidance rates (95 – 99.9%) is focussed on for the purposes of the assessment⁴³⁴. That allegedly “narrower” range still though encompasses a 50-fold difference in collision estimates⁴³⁵;
- (iv) Dr Grant’s professional judgment is that the narrower range of avoidance rates is correctly focussed on because these are the most plausible and he gives two main reasons:
 - a. Both guillemot and razorbill are pursuit divers, using their wings for propulsion as they seek to catch fast moving fish which often use high burst speeds and high manoeuvrability to escape predators. Guillemot and razorbill are also visual foragers, relying on sight when locating, pursuing and catching their prey. As such, these species are capable of making rapid response movements and have high levels of manoeuvrability when swimming underwater, suggesting that higher avoidance rates are likely to be appropriate⁴³⁶. Dr McCluskie accepted that it was relevant to consider such

⁴³⁰ See his proof at para. 5.12 and his answers in XX.

⁴³¹ See MDF/F19 at p. 67 “*Given the present lack of knowledge of avoidance behaviour, SNH recommends that all collision risk assessments using an avoidance factor should set out results using six avoidance rates: 0% (i.e., no avoidance), 50%, 90%, 95%, 98% and 99%” (emphasis added)*

⁴³² See MDZ/F19 p 67, MDZ/F15.2 p 12, 2nd paragraph and Dr McCluskie’s answers in XX.

⁴³³ MDZ/A31.11.

⁴³⁴ See Annex 11.3, MDZ/A31.12.

⁴³⁵ As Dr Grant explained in evidence in chief.

⁴³⁶ See MDZ/P1 Dr Grant’s Proof of Evidence at para. 4.4.

factors⁴³⁷. But Dr McCluskie never put forward his own view of what an appropriate avoidance rate (or range of rates) was, but surely no one can contend that seabirds such as these would have a 0% avoidance rate. That is preposterous given the abilities of these seabirds. To argue for a full assessment on such a basis is unjustifiable.

- b. the avoidance rates applied to CRMs for onshore and offshore wind turbines in relation to birds in flight have increased for many bird species (and markedly so in some cases) from initial, precautionary, values of 95% later 98% as data availability and the understanding of interactions of birds with wind turbines has increased⁴³⁸. Thus, for many species (or species groups) the avoidance rates that have now been calculated in relation to wind turbines are 99% or higher⁴³⁹. It is clearly the case that the range used in the assessment encompasses values considerably lower than the vast majority of the estimates derived for birds in flight in relation to wind turbines. Moreover, there are other factors that are likely to cause avoidance rates for tidal turbines to be higher than those for wind turbines, perhaps most notably: (i) the slower travel speeds of swimming than flying birds; (ii) the slower tip speed of tidal turbines (c 20mph for tidal vs c 100mph for wind); (iii) the greater potential for birds to be swept around the tidal turbine blades due to hydrodynamic forces (because water is much denser than air) and (iv) the fact that foraging activity by diving birds may be lower in those tidal states and rates of flow associated with slow turbine rotation speeds or which are below cut-in speed (see below).

- (v) Dr McCluskie argues for a potentially lower (unspecified) avoidance rate (or range of rates) based on two points:

⁴³⁷ See Dr McCluskie's answers in XX.

⁴³⁸ See MDZ/P1 Dr Grant's Proof of Evidence at para. 6.20, his rebuttal at para. 4.4, his oral evidence and Dr McCluskie's answers in XX.

⁴³⁹ See RPE010 Dr Grant's Rebuttal Proof of Evidence at App 2, Table 1 and Dr McCluskie's answers in XX. See also PE010 Dr Grant's Rebuttal Proof of Evidence at App 3, Table 1 and the Cook et al analysis in Dr McCluskie's appendices at pp. 26 -27 which were looked at in XX of both Dr Grant and Dr McCluskie. The default rate started at 95%, it was later raised to 98% for most species or species groups. Moreover, in relation to onshore wind farms, 9 out of 11 species or species groups now have higher avoidance rates than the new default, with two species still at the original default level of 95% that is kestrel and white-tailed eagles. In relation to offshore wind farms, the SNCBs recommended increasing the default 98% avoidance rate for all five seabird species for which the Cook et al analysis identified sufficient evidence to enable a review of the avoidance rate (although in the case of black-legged kittiwake the SNCBs recommendation was for a smaller increase than that suggested by Cook et al).

- a. **Attraction to aggregated prey:** the position is that while there is some evidence of fish being attracted to tidal devices at some sites and thus there is a possibility of birds being attracted to devices there is no actual evidence of this⁴⁴⁰;
 - b. **Reduced visibility due to water clarity:** this seems unlikely given that these are birds who dive and chase fish underwater using sight, whilst it is also the case that avoidance rates as applied to birds in flight in relation to wind turbines also have to account for times of poor visibility (e.g. at night and during periods of low cloud or fog).
- (vi) Moreover, “the guidance does not state that the assessment should necessarily focus on this wide range of avoidance rates, and SNH do not appear to expect such an approach to be taken. For example, the Habitats Regulations Appraisal (HRA) undertaken by SNH in relation to the proposed additional (sixth) turbine for the Shetland Tidal Array was based upon an assessment of collision risk to diving seabirds using the ERM with a 98% avoidance rate”⁴⁴¹;
- (vii) Dr McCluskie complained in his proof⁴⁴² that the assessment of avoidance rates in the ES failed to consider uncertainty but he rightly withdrew this criticism, accepting he was mistaken in this regard⁴⁴³.

227. Second, Dr McCluskie complains that the assessment used a common avoidance rate applied to average (mean) ERM and CRM outputs rather than using the worst case outputs. There are several points in response:

- (i) The guidance is entirely silent either way on the acceptability of such an approach⁴⁴⁴;

⁴⁴⁰ See the Enfait report in Dr McCluskie’s appendices at paras. 3.2.1 and 3.3.3 (POE007.1 electronic pages 926 and 928 -929) and Dr McCluskie’s answers in XX.

⁴⁴¹ See RPE010 Dr Grant’s Rebuttal Proof of Evidence at para 4.3 and his Appendix 1 internal pp. 9, 13 and 19 and Dr McCluskie’s answers in XX.

⁴⁴² See para. 5.31.

⁴⁴³ See RPE010 Dr Grant’s Rebuttal Proof of Evidence at para. 4.9 and Dr McCluskie’s answers in XX.

⁴⁴⁴ See Dr McCluskie’s answers in XX.

- (ii) The approach was taken for essentially pragmatic reasons in order to make the outputs digestible given that the assessment was looking at several different species, 9 devices, 2 generating capacities and a range of avoidance rates⁴⁴⁵;
- (iii) The approach is justified given that neither model is identified as being preferred by the relevant industry guidance⁴⁴⁶ and there is no basis for assuming that the estimates from one model are any more accurate than those from the other. Although the calculations and approach of the two models differ, in both cases the avoidance rate is applied to the model output as the end point in estimating collision mortality. Thus, it is equally likely that the ERM, CRM or averaged ERM/CRM outputs with a particular avoidance rate applied give the true collision estimate⁴⁴⁷;
- (iv) While RSPB say that using the higher of the ERM/CRM values would be more precautionary, there are already (see above) many precautionary elements and Dr McCluskie himself complained that in places Menter Môn's analysis was too precautionary⁴⁴⁸. The problem is that if an analysis is too precautionary it becomes wholly implausible. The level of precaution to be applied is a judgment;
- (v) Indeed ultimately, this issue involves a quintessential matter of professional judgment on which two ornithologists might reasonably disagree⁴⁴⁹ without either holding an unreasonable view;
- (vi) Moreover, in any event Dr Grant, as described in his proof, has undertaken the analysis on the basis of the higher CRM/ERM values advocated by Dr McCluskie for the Phase One scenario and found that it had little impact on the outcome and did not change the conclusion of no significant effect on either the guillemot or razorbill populations⁴⁵⁰.

228. Third, in relation to the PVA analysis:

⁴⁴⁵ See Dr Grant's evidence in chief.

⁴⁴⁶ MDZ/F19

⁴⁴⁷ See RPE010 Dr Grant's Rebuttal Proof of Evidence at para. 4.13, bullet 1 and his evidence in chief.

⁴⁴⁸ See above.

⁴⁴⁹ See Dr McCluskie's answers in XX.

⁴⁵⁰ See MDZ/P1 Dr Grant's Proof of Evidence at para. 6.23 and Dr McCluskie's answers in XX.

- (i) It is agreed by Dr Grant and Dr McCluskie that:
 - a. There are two metrics identified as being appropriate in reviews commissioned by the JNCC and Marine Scotland Science namely Counterfactual of Population Size or CPS and also Counterfactual of Population Growth Rate;
 - b. The assessment undertaken by Menter Môn in the ES applies both of these metrics⁴⁵¹;
- (ii) Dr McCluskie in his proof⁴⁵² says that “[t]he RSPB welcome the manner in which Population Viability Analysis has been carried out for the guillemot and razorbill populations at South Stack and Penlas and the presentation of the correct, recommended, counterfactual output metrics”;
- (iii) The only complaints Dr McCluskie pursued on the PVA analysis were:
 - a. The PVA analysis did not use the full range of avoidance rates (0-99%)⁴⁵³: this is dealt with above;
 - b. Menter Môn also used a third metric⁴⁵⁴ the “25-year population relative to current population”: But this was an additional analysis and no sensible complaint can be made about its inclusion alongside the recommended metrics⁴⁵⁵.

(v) Monitoring issues

229. In the end it seems that RSPB’s case is very much focused on the monitoring issues. Dr McCluskie’s proof in considering the EMMP focusses almost exclusively on monitoring⁴⁵⁶. Before turning to the monitoring issues in detail there are a number of points to reiterate by way of context:

- (i) As noted above Dr McCluskie accepted that absent the concern about whether there could be effective monitoring the RSPB’s case would largely fall away;
- (ii) If RSPB is correct as regards monitoring (and it is not), then the EMMP is clear that no deployment may take place. That means that irrespective of the merits of the

⁴⁵¹ See RPE010 Dr Grant’s Rebuttal Proof of Evidence at para. 4.14 and Dr McCluskie’s answers in XX.

⁴⁵² See para. 5.33.

⁴⁵³ See POE007.1 Dr McCluskie’s Proof of Evidence at para. 5.33.

⁴⁵⁴ See POE007.1 Dr McCluskie’s Proof of Evidence at para. 5.19.

⁴⁵⁵ See Dr McCluskie’s answers in XX.

⁴⁵⁶ See POE007.1 Dr McCluskie’s Proof of Evidence at p. 20 onwards and his answers in XX.

detailed points raised by RSPB there can be no concern at this stage so long as it is assumed that NRW is a competent regulator. Because unless they are satisfied pre-deployment that monitoring will be effective there cannot be deployment. So, in our submission, In our submission, it is not possible to make any case stand based only on this point;

- (iii) RSPB's concerns are mostly not specific to the site or the project they are issues about the availability of technology to allow monitoring that would apply to any tidal proposal anywhere in the world. The logical conclusion of the arguments RSPB makes is that there should be no more tidal deployment. Indeed, in re-examination Dr McCluskie explicitly advocated this saying that instead monitoring should continue in respect of such limited tidal devices that have already been deployed. There are presently no tidal devices off Wales, and Dr McCluskie's position is directly contrary to Welsh Government policy that seeks to support an MDZ at this location. This argument also ignores the need for more data on the impacts of multiple arrays and which this project would allow for.

230. The EMMP rules out no forms of monitoring. Table 4-1 looks at active sonar, surface infra-red visual spectrum camera, vantage point surveys, underwater video camera, colony counts and tagging.

231. The aim of the monitoring is to look at: (i) potential collisions; (ii) annual numbers/breeding success rates at the colony and (iii) the tracking of movements and diving behaviour.

232. Although no technique is being taken "off the table," three main monitoring techniques are considered in detail by Dr Grant, and have been given most consideration to date:-

233. First, there are annual colony counts. These aim to estimate the number of breeding birds at a colony and also the breeding productivity. There is nothing novel about these, and it is essentially a proposed extension of what the RSPB already do in terms of colony monitoring⁴⁵⁷. The RSPB fully support such counts being done, and agree these are

⁴⁵⁷ See MDZ/P1 Dr Grant's Proof of Evidence at para. 6.10 and Dr McCluskie's answers in XX.

entirely possible. Further details of what is proposed will be a matter for the Detailed EMMP and the processes it sets in place. In the end RSPB's only point is that colony counts alone are insufficient in terms of the necessary monitoring and that is agreed.

234. Second, there is tagging and tracking. The purpose of this is not to monitor collisions⁴⁵⁸ rather it is to monitor and obtain data on where seabirds from the relevant colony travel to and what their diving behaviour is. This will allow a further assessment of their likelihood of interaction with tidal devices, and will enable refinement of key input parameters used on collision modelling. This data is important and Dr McCluskie recognised that tagging and tracking allowed you to "*get really useful information*"⁴⁵⁹. Moreover, there is nothing novel or experimental about such studies. It is reasonably well tried and tested approach. Of course, the ability to undertake such work is dependent on conditions and the situation at the colonies in question e.g., in determining which birds are safely accessible for catching on the nesting cliffs. Everyone agrees catching the birds is a challenge. There are though a number of points:

- (i) Menter Môn has engaged with the RSPB to determine the feasibility of catching guillemots and razorbills at the South Stack and Penlas colonies, with RSPB indicating that it may be possible to catch approx. 15 individuals of each species during a single breeding season⁴⁶⁰. The attempt to back-track from this in Dr McCluskie's oral evidence (his suggestion that this was apparently "very much a maximum"⁴⁶¹) was lamentable, and somewhat indicative of the generally obstructive approach of the RSPB in relation to this project;
- (ii) There are two points to make about the size of this tagging study. First, the limit on numbers is going to apply to any such study in this area, whether undertaken by the RSPB or Menter Môn. It derives from the difficulties of catching and tagging such birds. Second, c. 15 of each species per year is sufficient given the data sought namely in relation to movements and diving behaviour, and that such data would

⁴⁵⁸ See RPE012 Dr McCluskie's Rebuttal Proof of Evidence at para. 17, and Dr Grant's response in his evidence in chief.

⁴⁵⁹ See Dr McCluskie's evidence in chief.

⁴⁶⁰ See MDZ/P1 Dr Grant's Proof of Evidence at para. 6.11, his evidence in chief and also MDZ/A28.56.

⁴⁶¹ Which is not what the advice said.

be collected over multiple years. The numbers are similar to other tagging/tracking studies on which the RSPB has relied⁴⁶²;

- (iii) The RSPB emphasises that the period of the year in which birds may be caught is limited to chick-rearing – albeit it is the time when the birds are working hardest in terms of their foraging effort. But again, this is not a site specific issue as it applies to the vast majority of such studies undertaken on breeding seabirds, and it does not mean that useful data cannot be obtained⁴⁶³;
- (iv) In terms of the nature of the tags to be used the detail of this is for approval under the detailed EMMP. There is the possibility of attaching both GPS and TDR loggers. Here Menter Môn has engaged with Bangor University who are undertaking similar studies nearby⁴⁶⁴. There is now also at the very least the possibility of a single device that captures both sets of data;
- (v) There is also now the possibility of remote download of data. There is one study of breeding guillemots and razorbills in the UK that is doing this already, while the method has been used successfully on other seabird species. So, it is potentially feasible. But without this a tagging study could still be successful, and many others have been (e.g. as with the Bangor University work on guillemots at a nearby colony referred to above);
- (vi) The issue of the period for which tags would collect data is a matter of detail for a later stage⁴⁶⁵, as would be the decisions on the details of the tags to be used (e.g., single logger capturing both GPS and TDR data or two separate loggers);
- (vii) Other tidal power projects have made use of such studies⁴⁶⁶.

⁴⁶² See Dr Grant's evidence in chief.

⁴⁶³ See Dr McCluskie's answers in XX.

⁴⁶⁴ See MDZ/P1 Dr Grant's Proof of Evidence at para. 6.12 and MDZ/A28.56.

⁴⁶⁵ See RPE012 Dr McCluskie's Rebuttal Proof of Evidence at para. 15 and his answers in XX.

⁴⁶⁶ See the State of the Science report in Dr McCluskie's appendices to his proof (POE007.1 at electronic page 1180).

235. Dr McCluskie's evidence was an attempt to play up the difficulties of the use of tagging/tracking. This was disappointing and unworthy. Menter Môn hope that if the Order is made that the RSPB is more co-operative in this regard so that the gaps in data which all are agreed currently exist can be filled. It is galling to be told that this scheme should be refused because at present there is insufficient information to assess impacts and then for RSPB to seek to overplay the difficulties in obtaining this data. What is the alternative? It is no tidal deployment, which would be a real blow to the fight against climate change, something that RSPB say is the greatest threat to the animals that they are supposed to be seeking to conserve.

236. So, in conclusion on tracking/tagging it is important to understand such work on these species has and is undertaken at colonies elsewhere in UK e.g., similar studies on guillemot currently progressing successfully at nearby colonies in North Wales. There are already well-established approaches and methods. It is not particularly novel nor 'experimental'. Indeed, many aspects are tried and tested. The broad proposal of approach to tracking studies can be set out at this stage with decisions on fine detail of methods and exact equipment to use made at a later stage, and subject to regulatory approval.

237. Third, in relation to video and sonar. Again, the RSPB overplay the difficulties. Much time was spent on this in the oral evidence. What it comes down to is this:

- (i) The technologies are developing in this area, but there are existing tidal deployments which are already using these techniques and with some successes: see the Enfait report in respect of Bluemull Sound⁴⁶⁷; and also, in respect of Meygen⁴⁶⁸.
- (ii) There is no evidence to suggest that the water in the MDZ is such as to rule out the use of video⁴⁶⁹;

⁴⁶⁷ See Dr McCluskie's appendices to POE007.1. The report starts at electronic page 915 (hereafter internal page numbers used): see section 1.2 p 4; section 2.1, p. 4; p. 5, section 2.2.2, p. 7; p. 9, section 3.3.1, section 3.3.2, section 3.3.2, p. 13 to 14 and the photographs and section 3.4.2 p 15. See also Dr McCluskie's answers in XX.

⁴⁶⁸ See the State of the Science report electronic page 1164, 1179 and 1181. The text in relation to Meygen refers to video cameras and acoustic monitoring being used to monitor seabirds including black guillemots and shags.

⁴⁶⁹ Indeed, there is contrary evidence in the annex to the ES on benthic ecology.

- (iii) The possible use of sonar (which alone currently cannot identify bird species) with video or vantage point surveys (or even tagging) for monitoring birds is endorsed in NRW's evidence review⁴⁷⁰ and looks at examples worldwide of success with sonar: see MDZ/F15.2 pp. 29 – 30:

“Acoustic monitoring of seabirds has often been a secondary aim of the hydroacoustic devices deployed at tidal stream projects. This is due to the difficulty in identifying species owing to the relatively small size of seabird compared to marine mammals. However, several hydroacoustic devices have successfully tracked seabirds by tracking dives on acoustic imagery ... The FLOWBEC platform deployed at EMEC was specifically designed to monitor seabirds, by using novel algorithms that aid detection of seabirds within high energy areas (Williamson et al., 2019). Six trials lasting 14 days each detected a single seabird at both the control location and the location with a turbine present. During the short trial period the technology was proven, and the algorithms refined to ensure the technology would be able to record a collision (if one were to happen). Similarly, at the DeltaStream device in Ramsey Sound, the hydroacoustic device detected seabirds on multiple occasions, with no collision observed.”

- (iv) Moreover, Dr McCluskie accepted that as an alternative the species identification limitation with sonar could be overcome by a precautionary approach whereby any collision was assumed to be of the bird species that was most sensitive in terms of mortality;
- (v) The project is to last for 37 years – there is little reason to doubt that technologies for monitoring will continue to improve, and indeed as noted above granting this consent creates incentives for this.

⁴⁷⁰ “Direct collision monitoring Direct measures to determine collision use technologies which can “see” the device, either through hydroacoustic monitoring (e.g., sonar or echosounders) or underwater video cameras. In theory, these technologies could detect when an object, whether it be debris, or seabird directly collides with the device, but to date this has not happened. The methods that are used to detect seabirds are similar to the methods used to detect marine mammals, with all technologies applicable to both receptors. Please refer to Section 6.1.3 for full explanation of the monitoring approaches used.”

“A seabird specific limitation of the device, especially hydroacoustic, is that due to the small size of seabirds it is impossible to identify the species of seabird recorded (Williamson et al., 2017). Currently, to understand species specific direct collision monitoring, the use of video cameras is required. However, for future projects hydroacoustic monitoring could be used concurrently with either data loggers or vantage point surveys to identify which species are detected on the hydroacoustic monitoring device ...”

238. Menter Môn understands the challenges but says that RSPB in its keenness to oppose this scheme is too dismissive of the potential, and has failed to take sufficient account of the successes already achieved with video/sonar at other sites.

The EMMP

239. It is against that considerable background we come to discussion of the EMMP. Now, many of the issues which relate to various criticisms of the EMMP have already been covered above, so we do not propose to say too much more on it here save for picking up a few points not covered elsewhere. Mr Fortune both in his proof⁴⁷¹ and rebuttal proof,⁴⁷² and in his evidence,⁴⁷³ has provided a helpful outline of the EMMP process. The use of adaptive management is not uncommon. It has been used for example the SeaGen Tidal Turbine Project in Strangford Lough, the Meygen Tidal Array Project in Pentland Firth, in the Swansea Bay DCO,⁴⁷⁴ and the Skerries Tidal Array Project in North Wales.⁴⁷⁵ Nor is the provision of a phased approach to deployment – again Meygen is a clear example.⁴⁷⁶ Nor is the use of an outline plan at consent stage, following by later, detailed post-consent plans.⁴⁷⁷

240. As a starting point, our position is this: we are confident that an effective scheme of mitigation and monitoring can be put in place. We have explored the alleged challenges to that above, and we maintain it can and will work. However, what the EMMP provides is a system whereby (i) an advisory group is heavily involved in the process, (ii) once the devices are ascertained, and all of the modelling and precautionary assessments undertaken are re-done, (iii) the latest available technology can be taken into account, and (iv) we still have to prove to NRW that mitigation and monitoring can be, and is, effective, and the project can be deployed within the PDE we ask you to approve today and without significant effects on seabirds or mammals.

⁴⁷¹ MDZ/P4.

⁴⁷² RPE005.

⁴⁷³ Day 13.

⁴⁷⁴ MDZ/B14 Swansea Bay Tidal Generating Station Order.

⁴⁷⁵ MDZ/P4 Mr Fortune proof of evidence, para. 82.

⁴⁷⁶ Inquiry Doc – 083, see p. 26 Annex 2 Condition 2.

⁴⁷⁷ Mr Fortune Evidence in Chief, Day 13 AM Session 1, MDZ/P4 at paras. 22-24.

241. Pausing there, you specifically asked us to make clear how the application of adaptive management sits within the EMMP and approaches the different species. We hope, Sir, that has been covered above in the Marine Mammals and Ornithology sections.

242. That brings us to the position of NRW on the EMMP. You heard from Mr G Lewis in the EMMP RT⁴⁷⁸ that *“you’ll have seen that in terms of our own careful assessment of the material with which we’re provided, we’re content that although the procedures of adaptive management and responsive monitoring and mitigation would not be our preferred course of action or first port of call, in circumstances where one is dealing with a new and experimental technology we accept that this is a case in which that approach can be accepted by NRW advisory to be appropriate....We hear and take on board RSPB’s concerns about a certain lack of detail in OEMMP. We think it is inevitably the position that one won’t have the level of detail one would prefer at this stage in process. We have pressed Menter Môn to provide as much details as we think it is feasible and practical to do at this stage. We think we have exhausted that. There are some matters we think it won’t be able to resolve – and those relate primarily to underwater noise”* and pausing there Sir, we’ve covered that. Mr G Lewis continued: *“So we’ve not reached complete satisfaction but we will identify what areas of outstanding disagreement are. But that is in a context where we have been able, otherwise, to reach agreement on appropriate way forward on what is a challenging context because of experimental nature of technology.”*

243. In terms of the outstanding issues (other than on underwater noise, covered above). First, there were some drafting changes NRW sought. Largely, these have been made.⁴⁷⁹ Second, NRW challenges a statement in para. 39 of the current Outline EMMP that the Menter Môn intends to remove monitoring and mitigation requirements as soon as evidence gained from the EMMP shows it is appropriate and safe to do so, with the agreement of Regulators. NRW’s position is, in effect, that it considers it likely that monitoring will be required throughout the project.⁴⁸⁰ However we have two responses. First, we do not consider it inevitable that we will have to monitor for the whole of the 37 years. Second (and this is the key point), even with that paragraph in NRW still have

⁴⁷⁸ Day 14, PM Session 1.

⁴⁷⁹ See Inquiry Doc - 085 and the EMMP RT Day 14 PM Session. The latest version of the OEMMP is at Inquiry Docs - 100 and 101. NRW asked for wording on the Outline EMMP to reflect revised condition 36 on the draft ML. We have done that at para 28. NRW asked for further wording to make clear we would not take any mitigation or monitoring methods “off the table”. This is done at para 149. Finally NRW asked for some changes to paragraph 7 Outline EMMP to make clear that “all phases” includes “Phase 1”. We have done that.

⁴⁸⁰ The challenge is made in Inquiry Doc - 085, section 3.

complete control over whether the monitoring can be stopped. The ball remains very much in their court – it just allows us to seek to persuade them if we’ve a basis to do so. So, Sir – if you don’t include NRW’s change, we have to monitor unless we can persuade them it is not necessary. If you do make NRW’s change, we have to keep monitoring *even if* it becomes unnecessary – which is not, we submit, a good use of anybody’s time or resources. You will also of course have Mr G Lewis suggestion that, if you are not going to remove this paragraph, that NRW might take some comfort from a tweak to the wording to make it clearer that any removal would be subject to the agreement of NRW.⁴⁸¹ We have made this tweak – see para. 39 of the OEMMP.⁴⁸²

244. Sir you raised a query about air quality assessments. This has been resolved.⁴⁸³

245. Against that, a number of complaints were raised by the RSPB about the Outline EMMP. Again many of these have been dealt with above so this is really a “mopping up” section. RSPB raises the concern of project “creep”. This was put in two ways. It was put to Mr Fortune that nothing in the Outline EMMP tied Phase One to the 0.7PBR scenario discussed throughout this inquiry.⁴⁸⁴ That is plainly wrong: see para. 39 of the Outline EMMP. A concern was then raised that Phase One would not be tied to there being no significant impact on diving birds – the concerns seem to be twofold. First that para. 39 Outline EMMP is “indicative”, and second that once the devices are ascertained, their collision risk profile may have a greater effect on birds than marine mammals such that significant effects may be reached for diving birds before the 0.7PBR limit is reached for dolphins. However, para. 87 makes very clear that Phase One will be deployed at a level below which significant impacts are predicted “for marine mammals or diving birds”, and as Mr Fortune explained and Plate 2-1 makes clear re-running ERM and CRM modelling for marine mammals and diving birds is part of the process. There is, with respect, no reason to be in such a flap.

246. RSPB raised a concern with Mr Fortune that there was nothing in the Outline EMMP which says “this will definitely end up in the final Outline EMMP approved as part of the

⁴⁸¹ EMMP RT, Day 14 PM Session.

⁴⁸² Inquiry Docs – 100 and 101.

⁴⁸³ FEI Rep 007, EIC013, p. 25 paras 89-90 and the submission of Mr Maurici QC and Mr G Lewis, Day 15 AM.

⁴⁸⁴ Ms Lean’s Cross Examination of Mr Fortune, Inquiry Day 13, AM Session 1.

ML.”⁴⁸⁵ Again this can be taken shortly – it’s effectively the “nexus” point previously covered with NRW (see above). NRW are satisfied with what we have proposed to ensure that nexus, and you can be too.

247. RSPB raised a concern about what methods were “in” or “out” when it comes to monitoring and mitigation. Again Sir we can take that shortly – everything will be considered. It is unfortunate that there was some text included in a draft Outline EMMP that indicated otherwise, but Mr Fortune was very clear to correct that in both evidence in chief and cross examination.⁴⁸⁶

248. RSPB has suggested that little weight can be put on what is proposed in the Outline EMMP, because it recognises that assessments will happen in the future taking account of the best available information at that time.⁴⁸⁷ This is an utterly (and transparently) baseless point. The Outline EMMP contains technologies for monitoring and mitigation we consider, at this point in time, will work. It recognises that over a 37 year project that technology will advance. It puts in place a clear process by which phasing is controlled by the Welsh Ministers/NRW, by which an Advisory Group (which could include RSPB) has clear input into the project, and by which advances in technology can be incorporated. It is a clear, responsible, adaptive management process. To suggest such a thing should carry “little weight” because it recognises uncertainty (notwithstanding the fact that it puts in place controls to manage that) is simply irreconcilable with the PDE approach and with long-term, developing, technology.

249. A question was raised about the “trigger points” for implementing mitigation, and you will recall Ms Lean spent considerable time in cross examination with Mr Fortune about the extent to which timely retrieval of data is required for that to be effective.⁴⁸⁸ We accept that timely receipt of data is important, but we have adopted the collision framework required by NRW for mammals,⁴⁸⁹ and the data review by the Advisory Group for birds. As we have said at length, to deploy we need to convince regulators this

⁴⁸⁵ Ms Leans XX of Mr Fortune, Day 13 AM Session 1.

⁴⁸⁶ Day 13 AM Session 1.

⁴⁸⁷ Ms Lean’s question to Mr Fortune, Day 13 AM Session 1.

⁴⁸⁸ Day 13, AM Session 1.

⁴⁸⁹ Inquiry Doc - 063 – Plate 2-2 to 2-3.

will work.⁴⁹⁰ We think it will, but the call is theirs. Again then, this goes nowhere save collapsing into the question of whether NRW is a competent regulator. We say so.

250. So in summary, what we have here is a clear, controlled process that will ensure nothing goes into the water unless and until the regulators are satisfied that it will remain within the project parameters, have no AEOSI on marine mammals or significant impacts on diving birds.

Main matters 3- 5: general points

251. Sir, we are leaving behind ecology and moving on to character and appearance, socio-economics and navigation. Before we address each of these in turn there are some general points we would like to make, because complaints have been made about consultation and the ES which, though first aired in the socio-economic RT, are threaded through the parties' submissions in a number of different areas. These are primarily raised by the RYA and SCC,⁴⁹¹ and some members of the public. We therefore endeavour to bring these out and deal with them as an overarching point.

Consultation

252. With regard to consultation:

- (i) We entirely refute the argument that there has been inadequate consultation. No one is suggesting that the statutory notifications required for the Order have not been followed. They clearly have been. Moreover, there was consultation that goes far beyond these statutory requirements much of which is outlined in Chapter 6 of the ES⁴⁹².
- (ii) We refer you also to the note we have put into the inquiry regarding when consultation with members of the public and local kayaking and sailing

⁴⁹⁰ Inquiry Doc – 063, para. 8: “No device operation will be allowed until Regulators are satisfied that effective monitoring is in place that can directly inform the implementation of the EMMP, and inform the agreed aims, objectives and management questions set by the EMMP for the Project.”

⁴⁹¹ Mr Hill evidence in the Socio-economic RT, Day 5, AM session 1.

⁴⁹² MDZ/A25.6.

stakeholders was undertaken, including details of the public information days.⁴⁹³ In our submission we have done everything required and far, far more. Indeed, Mr Pattullo for SCC very fairly acknowledged that the consultation “*did work*”.⁴⁹⁴

- (iii) Mr Hill raised a point regarding a particular consultation in 2013, first suggesting that it was not on this project, and then querying why this is not referred to in Chapter 6 of the ES (the Consultation Report).⁴⁹⁵ Frankly, this does not go anywhere. Nobody is disputing this consultation happened. It concerned possible tidal site options, one of which was off Holy Island and South Stack.⁴⁹⁶ As the principles we have outlined previously show, the ES is not a set of trip wires, nor does it have to include every scrap of information. This is a pointlessly formalistic complaint.
- (iv) There are two particular problems with the RYA making this argument.
 - a. First, the RYA has acted as something of a blocker. Local sailing clubs have not engaged with us, instead going through the RYA. Mr Hill suggested that RYA only suggested clubs came to it instead of engaging with us on 22 October 2020 – notwithstanding a screenshot of one local club from 16 October 2020 already being in Cdr. Brown’s Rebuttal proof of evidence.⁴⁹⁷ Mr Hill then revised his date to 09 October 2020. While there is nothing wrong with the RYA acting as a representative body (indeed one can see that would in some situations be helpful), we have had limited responses from the RYA – particularly in relation to the socio-economic assessments - and reaching out to clubs for the purpose of the supplementary tourism and recreation assessment. Moreover, no responses were received to the information we sent to sailing clubs, both individual and via the RYA, with the intention of addressing common misconceptions about the MDZ in the sailing community.
 - b. Second, the reason the RYA has claimed that it needed to act as a representative body is because of alleged “*overenthusiastic consultation*”.⁴⁹⁸ Mr Hill declined to

⁴⁹³ Inquiry Doc – 013.

⁴⁹⁴ Mr Pattullo evidence in the Socio-economic RT, Day 5, AM session 1.

⁴⁹⁵ MDZ/A9.

⁴⁹⁶ See internal p. 37.

⁴⁹⁷ Socio-economic RT Day 5, PM session1; RPE006 at p. 13.

⁴⁹⁸ Socio-economic RT Day 5, PM, Session 1.

provide any further substance to what he meant by that. Menter Môn does not need to respond to little more than innuendo – it engaged a local sailor to try and communicate directly with clubs, but the vast majority told us to address our concerns to the RYA.⁴⁹⁹ However we are intrigued by the fact that Menter Môn has somehow become Schrödinger’s Applicant, simultaneously undertaking both too much consultation, and too little.

- (v) In any case, we’re not entirely sure where this goes. Everyone is here, they have the opportunity to comment and make submissions. Indeed, again as Mr Pattullo fairly acknowledged, the whole reason SCC is here is because of the consultation.⁵⁰⁰

Alleged deficiencies in the ES

253. With regard to the ES criticisms, SCC’s complaint was that, in broad terms is they were not scoped in and so could not contribute to designing in mitigation.⁵⁰¹ They then complained about Menter Môn’s ongoing programmes of monitoring and mitigation, wanting other changes to the project. Mr Hill’s supplement was to allege that he could not see how we had considered established uses, and therefore could not show this was an appropriate area, was not compliant with the WNMP and was not compliant with EIA processes. Frankly, these can all be dealt with very shortly:

- (i) First, we wholeheartedly refute the argument that these activities were not considered. As we have already outlined you heard from Mr Bell that recreational boating would be considered through a combination of landscape, navigation and socio-economic evidence. Nobody challenged that professional view, and that is what you have heard and seen through the written and oral evidence of Mr Bell, Mr Myers, Dr Jones and Cdr. Brown, and the documentation on which they rely.⁵⁰²

⁴⁹⁹ RPE006 Cdr. Brown Rebuttal proof of Evidence para 6.1.2.

⁵⁰⁰ Mr Pattullo evidence in the Socio-economic RT, Day 5, AM session 1.

⁵⁰¹ Ms Wong evidence in the Socio-economic RT, Day 5, AM session 1.

⁵⁰² See e.g., MDZ/A25.25 (Socio-economics chapter of the ES) section 25.4.8, para 131, 139 and 142 looking at kayaking and sailing at both the national regional and local level, and cross-referring to MDZ/A25.15 (the Shipping and navigation chapter), which includes the NRA and NRAA. That ES was scoped with PINS, who did ask for more information and tourism and recreation but not boating specifically (MDZ/A8, pp46-47). Additional information on kayaking and sailing is in the

- (ii) Notwithstanding all of this, to be very clear, our willingness to undertake post-consent monitoring is not an indication that something fundamental is missing from the ES, or that there is going to be an adverse impact, but is an attempt to ensure that no adverse impacts arise and provide further assurance to stakeholders.
- (iii) As we have already outlined, an ES is not and cannot be an obstacle course. The question is whether there is enough information for you and the Welsh Ministers to reach a robust view of the project's impacts and that is so here. No clear legal defect has been alleged other than this more generic complaint, and we can see no basis on which one could actually be made.
- (iv) With regard to SCC's mitigation questions in particular, it is difficult to see what further socio-economic mitigation could be included in the project. We have laid out the parameters above within which the project has been designed. Moving, for example, surface emergent elements further away from the coast⁵⁰³ causes issues for the power generation and flexibility of the project.

3. Character and appearance of the locality

Summary

254. Turning to character and appearance of the locality, it is Menter Môn's contention, in summary, that a comprehensive, robust and appropriate SLVIA has been undertaken. There has been extensive consultation throughout that process. The project has responded to comments of key stakeholders, particularly NRW and IoACC, throughout the design

Supplementary Tourism and Recreation Assessment (MDZ/H1 pp 9, 12, 17, 22, 24, 25), the Supplementary Kayaking and Sailing Activities Assessment (MDZ/A28.58), two years worth of data looking at recreational kayaking in the vicinity of the MDZ (MDZ/A28.40), and the creation of yet further documents such as the Further Information on predicted changes in currents (MDZ/A31.1, see the Summary on p. 6 of the PDF), the signposting response to public representations to the ML response (MDZ/A28.32, in particular at p. 5), the Outline Tourism and Recreation and Monitoring Strategy (MDZ/A28.17 see p. 5), the Navigation and Shipping Responses (MDZ/A28.14, see 3-4) the consultation report (MDZ/A9, see e.g. Table 5-2 p 69, 74, 75), and the offshore components of the SLVIA (MDZ/A25.24).

⁵⁰³ SCC Opening Statement, Inquiry Doc – 010, p. 5.

and evolution process, incorporating mitigation so far as possible. The DDP will provide an effective control to manage the seascape, landscape and visual impacts of the project throughout deployment, and provides for the monitoring of any incremental changes through the requirement for a cumulative assessment. Conditions of the deemed planning permission (including the detailed Landscape Management Plan), provide appropriate mechanisms to deliver mitigation measures for the onshore components of the project. In short, the project has done as much as it can to mitigate the impacts of this project on the landscape and character of the area. There comes a time, however, when accommodating the concerns of stakeholders comes up against the constraints of the project, and that the project cannot go further to mitigate impacts without engendering serious project issues. That is so here. Notwithstanding the significant efforts undertaken, some significant effects on seascape, landscape and visual receptors remain – a conclusion with which NRW and IoACC broadly agree. Where further mitigation cannot be undertaken, as here, Menter Môn has committed to delivering a compensation package through a section 106 agreement, to help offset the potential seascape, landscape and visual effects. In summary, our position is we can do no more – and we note that Mr Solomon for IoACC confirmed in their view too we had done what we can, such that the proposed development was acceptable in planning terms.⁵⁰⁴ As we have outlined, it is Mr Bell's view that those impacts which are left are acceptable in the circumstances of this case, where they are a necessary by-product of the project and its attendant benefits. This is particularly so where, as you've heard from Dr Orme there are advantages to floating devices which means they still need to be within the PDE at this stage (see above). Although there are impacts, we submit they are acceptable in planning terms.

255. So that was our position in a nutshell. We now turn to it in slightly more detail, and we will address some of the points made against us. For your ease of reference, we first outline how the SLVIA was undertaken, before turning to the mitigation built into the project and the controls on its deployment via the DDP. It is against that background we will outline what you have heard regarding the impacts of the project on the landscape and character of the area, before turning to the contents of the s. 106 agreement.

256. Menter Môn's position was outlined for you by Simon Myers, an experienced Landscape Architect who not only gave evidence to you both in written form and through

⁵⁰⁴ Character and appearance RT Day 6 AM Session 1.

the character and appearance RT, but who prepared the SLVIA, post application responses, attended TWG meetings with NRW and IoACC, and attended four of the public information days. He has given you a clear and cogent account of the project and his assessment of its impacts and we urge you to give great weight to his evidence.

257. Before we delve into the detail there is one preliminary point we would like to pick up. Evidence for NRW was given by Ms Maidment, very helpfully covering for Mr Sumner. Mr Byass, at the start of the session outlined three key issues position by NRW:

- (i) A suggested extension of the Restricted Area Northern, to the triangle outlined in Mr Sumner's proof of evidence in Fig 5 (the "**Triangle**");⁵⁰⁵
- (ii) A definition of non visually prominent devices as submerged tidal devices;⁵⁰⁶ and
- (iii) With regard to the integration and mitigation for landfall cables if HDD cannot be relied upon, the suggestion that the ecological restoration and landscape integration be designed to take account of the SAC and AONB.

258. There were also other minor issues and, of course, we all have NRW's Statement of Case and proof. To the extent Ms Maidment's opinions at the character and appearance RT went beyond those key issues we urge you to disregard it as an unfortunate result of having to step into a complex case at the last minute. This is meant with no disrespect to anybody involved, but NRW's case is as posited in its proof of evidence and largely summarised by Mr Byass. That is what we respond to.

SLVIA - Process

259. Before we turn to the areas of dispute we wished to highlight certain key points as to how the SLVIA was undertaken.⁵⁰⁷ We don't intend to go over that in any detail now but it is recounted for you in the SLVIA Chapter of the ES,⁵⁰⁸ and in the oral evidence of Mr

⁵⁰⁵ POE021, p.71.

⁵⁰⁶ As in POE021 p. 70 Fig 4.

⁵⁰⁷ Day 6 AM Session 1.

⁵⁰⁸ MDZ/25.24.

Myers.⁵⁰⁹ We also note that the process aspects of the SLVIA have been agreed with NRW.⁵¹⁰ We also note the steer you provided in the character and appearance RT that, rather than getting into the detail of individual presentations and slides, you wanted to focus on big picture questions such as whether the development was visible, and whether the effect is acceptable.⁵¹¹ We highlight the following:

- (i) The SLVIA has been produced in accordance with relevant guidance such as GLVIA 3;
- (ii) The scope was discussed and agreed with NRW and IoACC;
- (iii) It covers all elements of the project;
- (iv) The character baseline is informed by studies undertaken or commissioned or published by IoACC, in particular their landscape and seascape character assessments. Where there was overlap between landscape and seascape, preference was given to seascape to avoid double counting;
- (v) The visual impact has involved assessing numerous receptors (both onshore and offshore, day and night) from viewpoints that are specific to different components of the projects. These were selected in the ordinary manner by using zones of theoretical visibility,⁵¹² and were also agreed with IoACC and NRW.⁵¹³ They were assessed in the ordinary way, looking at the size and scale of change, geographic extent and duration of the project. Pausing there, a query was raised by Ms Wong during the session about why there were not more viewpoints from areas used by recreational boating users. This has two responses, both outlined by Mr Myers in oral evidence.⁵¹⁴

⁵⁰⁹ Character and appearance RT Day 6 AM session 1.

⁵¹⁰ MDZ/L5 Table 4-1 Items 1-10.

⁵¹¹ Character and appearance RT Day 6 AM session 1.

⁵¹² MDZ/A26.9, Figure 24-2-2a and MDZ/A26.9, Figure 24-2-2b.

⁵¹³ Ms Wong in the Character and Appearance RT, Day 6 AM session 1, stated that there were no visualisations from viewpoint 14, which is a viewpoint from a recreational sea user. That is not correct, see MDZ/A27.8 Fig 24-3-14.

⁵¹⁴ Character and Appearance RT Day 6 AM Session 1.

- a. He explained no SLVIA can assess every possible receptor within a 15km study area – what matters is whether representative views have been used and, here, they have been.
 - b. It is acknowledged in the SLVIA in any case that there will be a significant effect on offshore recreational receptors within 2km of the MDZ. This is specifically covered by the viewpoint assessment⁵¹⁵, with viewpoints 13 and 14 representing offshore receptors at distances of 1.9 and 2.4km respectively, and viewpoint 14 representing people travelling on recreational vessels. No significant effects were identified at either of these viewpoints, so it is reasonable to conclude the significant effects would occur within approximately 2km. It is also reasonable to use other viewpoints to understand the likely effects of the project at other locations as the relative scale and extent of the offshore structures is largely dependent on position, distance and elevation. So their concerns are fully accounted for and the negative effect is acknowledged and so is before you and the Welsh Ministers.
- (vi) In both cases the assessment has assumed a realistic worst case scenario for the full deployment of the project. Within the parameters set out in the MDZ (i.e., a minimum distance of 1km from the coastline and no visually prominent devices in its northern part), it has assumed, for example, that the tidal energy devices would be positioned toward the eastern edge of the MDZ, and that a range of device types would be deployed.⁵¹⁶ It has also involved a range of visualisations and photomontages.⁵¹⁷
- (vii) The project has responded to matters raised by NRW and IoACC, as we will come to below.

260. You have also had photomontages produced by Mr Roberts.⁵¹⁸ He has been the first to admit, very fairly, that the image contained in OBJ058 there is (in his words) “*no science behind it*” and, while Menter Môn understands his genuinely held concerns we submit that

⁵¹⁵ MDZ/A25.24 and MDZ/A27.8.

⁵¹⁶ See, for how that has been factored in, MDZ/A28.19 FIG SLIVA POST APP 1.

⁵¹⁷ See e.g., MDZ/A28.19 and the figures contained therein. You will recall in response to a question from Mr Pattullo Mr Myers confirmed these assumed lowest astronomical tide.

⁵¹⁸ OBJ058.

image is simply not an accurate representation and can be given only very minimal weight. We will say no more about it. We would refer you instead to the visualisation from Penrhyn Mawr, Viewpoint 06.⁵¹⁹ Sir, you will also be aware that Mr and Mrs Roberts included some further visualisations in their Statement of Case⁵²⁰. The presentation of these images in the Statement of Case does not readily enable understanding of the project and the potential seascape, landscape and visual effects. These visualisations and their limitations, together with broad comparisons with work done as part of the SLVIA are addressed in the Proof of Evidence prepared by Mr Myers, Section 8.6⁵²¹

Mitigation

261. We would also take this opportunity to remind you of some of the mitigation measures that have been put in place specifically to reduce the seascape, landscape and visual impact of the project. Again you can find detailed references in the documentation⁵²² but we summarise some here as recounted in the oral evidence of Mr Myers.

262. First, with regard to the offshore elements of the MDZ:

- (i) There are a number of restricted areas where the deployment of certain types of devices is controlled.⁵²³ Of particular importance, no visually prominent⁵²⁴ tidal energy devices will be placed in the northern part of the MDZ, to reduce the potential landscape and visual effects in relation to the seascape/landscape and visual receptors to the north west of Holyhead Mountain. This was specifically instituted to respond to the concerns raised by NRW and IoACC about the relation between the MDZ and Gogarth Bay, the Northwest flank of Holyhead Mountain and South Stack.⁵²⁵

⁵¹⁹ MDZ/A28.19.

⁵²⁰ MDZ/N10.

⁵²¹ MDZ/P5.

⁵²² See e.g., MDZ/A28.19.

⁵²³ See e.g., MDZ/G13, MDZ/A25.4 Fig 4-2.

⁵²⁴ As this is a matter which ties into navigational safety, it should be noted that “visually prominent” means from the shore. They will be prominent to local sea users following the DDP – see the discussion between Mr Bolton of SCC, Mr Maurici and Mr Salter of the MCA on Navigation RT, Day 10 AM Session 2.

⁵²⁵ Simon Meyer’s Evidence, Character and Appearance RT Day 6 AM Session 1. You will recall Mr Roberts specifically asked why the northern part had been chosen to by NRW to be kept free from surface emergent devices, when there were more users in the southern part. In that, we are simply

Pausing there, NRW asked why “visually prominent” could not be defined in the Order. As Mr Myers outlined,⁵²⁶ there is no specific definition of visual prominence in the relevant guidance, such as GLVIA 3, but it is an accepted and integral part of SLVIA work. It depends, however, on a range of factors, linked to (e.g.) where devices are positioned (in particular distance from shore), the size of any emergent element, lighting, detail of structure, etc. As we do not know what devices will develop over the next 37 years, we cannot say now which will be visually prominent. To try and define visual prominence now, or to adopt NRW’s requested definition of “anything above the water” would have the effect of limiting the flexibility of the PDE approach. It might also be counterproductive – as Mr Myers outlined, it is highly likely developers will respond to the need to have non-prominent devices by refining their designs. Simply requiring such devices not be surface emergent would detract from that. If such a definition is included, and it is then thought that this has been counterproductive, it cannot be removed – as already noted a TWAO cannot be amended. The crucial point for the Welsh Ministers, however, is that the DDP, including its demand for a SLVIA where required, is a safeguard ensuring nothing will be deployed outside the consented PDE and that visual prominence will be rigorously considered. It is they, or NRW, that makes the decision – not Menter Môn.⁵²⁷

- (ii) A minimum separation distance of 1km would be applied from the coastline for visually prominent devices, helping to increase the separation distance between such structures from the coastline.

following the requirements of NRW and IoACC. For NRW, Ms Maidment explained that NRW rely on the LANDMAP system, which contains several visual and sentry areas in the northern area. This is to do with the area’s rugged, wild natural appearance and the experience of that when one is in the character area. Part of that is also the views to sea. The area further south is more settled, as there are scattered properties and buildings, whereas Gogarth Bay and Holyhead Mountain are more remote and wild. See Character and Appearance RT Day 6 AM Session 1 and PM Session 1 in the discussion between Ms Maidment and Mr Roberts.

⁵²⁶ Character and Appearance RT Day 6 AM Session 1.

⁵²⁷ During Character and Appearance RT Day 6 AM Session 1 Ms Maidment raised concerns implying that there would be disagreement between the various parties as to whether a device is visually prominent. That may be so, but it is not Menter Môn that has the final word and therefore the Welsh Ministers can rest assured there is substantive protection – whether Menter Môn agrees with it or not.

- (iii) Floating elements elsewhere within the sub-zones are being minimised to help ensure the composition of offshore elements is kept as simple as possible.
- (iv) Following consultation with statutory navigation consultees on colouring and lighting, the colouring on the structures and the lighting equipment can be altered compared with those assumed in the SLVIA. Whereas the SLVIA assumes that the entire structure is to be coloured yellow, in principle this can now be reduced to markings such as a 5m band – though final designs must be agreed with Trinity House and assessed as part of the DDP. Photomontages with this revised marking are included in the SLVIA Post Application Consultation Response.⁵²⁸ With regard to lighting, the inshore side of the MDZ the markers can use 2NM lighting, with 5NM lights on the offshore side. The photomontages have been done, and assessments undertaken, on the assumed basis that navigation lights on the TECs will be visible from the coast. The devices themselves however *may* only need lighting with a visibility of 150m,⁵²⁹ and if so as Mr Myers confirmed they should not be visible from the coast. The night time photomontages⁵³⁰ which show lighting on the devices themselves, rather than just the marker buoys, may therefore be very much a worst case. Trinity House has made it clear that they will only be able to assess this when devices are to be deployed,⁵³¹ and so the assessment assumes full regulatory illumination of devices. You will also recall the evidence of Capt. Harris, of Trinity House, in the navigation RT that while modern LEDs are visible – they appear as a dot rather than projecting like a lighthouse.⁵³²

263. Second, with regard to the Landfall substation:

- (i) A recessive location in the landscape has been selected, in a relatively low lying position. The landform has been used to help integrate the substation, by cutting into the side of a valley rather than building a platform out.

⁵²⁸ MDZ/A28.19. Ms Wong queried whether that was suitable for small craft in close proximity to the devices. Capt. Harris of Trinity House confirmed that the guidelines are based on risk assessments taking into account all regular users. Character and Appearance RT Day 6 AM Session 2, and again Navigation s RT Day 10 AM Session 2.

⁵²⁹ MDZ/L9 Statement of Common Ground with Trinity House p. 10-11.

⁵³⁰ MDZ/A28.19 Appendix 24.4.

⁵³¹ Discussion between you Sir, Mr McNamara and Mr Myers, Character and Appearance RT Day 6 AM Session 2.

⁵³² Evidence of Capt. Harris, TH, Navigation RT Day 10 AM Session 2

- (ii) The arrangement of plant and equipment within the buildings has been organised to result in a collection of buildings rather than one big one – this breaks up the scale of the development and creates a form and massing comparable with local agricultural buildings.
- (iii) Colours and materials (including natural materials) are proposed that are consistent with the vernacular associated with agricultural buildings, and are recessive in the local context.
- (iv) It is the buildings which are used to define the boundaries of the substation where possible, which reduces the requirement for security fencing.
- (v) Stone walls and stock proof fencing have been used as part of the new boundaries, again to help integrate the building into the locality.
- (vi) Planting has been considered, though it is fairly acknowledged this is of limited assistance in an open and exposed coastal landscape. And
- (vii) The use of external lighting is minimised in this rural location, using sensors to reduce the need for continuous lighting.

264. Third, the Switchgear Building is being positioned within an allocated employment site, adjacent to an existing substation and where surrounding development will be comparable in form, massing and appearance.

265. Fourth, travelling along the route to the grid connection substation, this has been located in a location where industrial structures form an established part of the baseline context, and where established vegetation surrounding the site provides effective visual enclosure.

266. Fifth, of course connecting all these elements are the cables. They have been placed underground, to avoid the need for any overhead lines and cluttering on the Island. They have also been routed along existing roads insofar as possible to minimise any potential

disruption to field boundaries, and there is to be reinstatement of the ground and landscape features following construction.

Controls on the project

267. Turning then to the controls on the project, we have touched on some of these above when outlining how it will be deployed. However, they are particularly relevant here.

268. First, we draw to your attention the DDP. A pictorial representation of the process flow is contained in the Appendix R-B to Mr Myers rebuttal proof of evidence.⁵³³ As Mr Maile explained in the character and appearance RT, this will have to be submitted prior to the deployment of any tidal device or operational hub which will be surface emergent. It will require a fresh SLVIA undertaken for each deployment, including an assessment of the cumulative impacts of the proposed development with any operational or consented deployment. It will therefore allow the issues discussed during the inquiry to be judged at the stage of deployment, based on the devices proposed.⁵³⁴ This will ensure that the overall deployment remains within the PDE considered through the EIA process at this stage.

269. Second, the Landscape Management Plan. An outline Landscape Management Plan has been submitted.⁵³⁵ The Landscape Management Plan itself has been an evolving document to this point, but will be secured through a condition of the deemed planning permission.⁵³⁶ This will focus on the terrestrial components of the project to avoid overlap and duplication of the DDP. It will include some elements of enhancement (so, for example, it is highly likely features such as field boundaries will be enhanced where they are effected by the project), and there is of course scope for further detail as the outline plan becomes finalised. This of course sits alongside the compensation secured by the s. 106 agreement, to which we will turn below.

⁵³³ RPE007.

⁵³⁴ Paul Maile's Evidence to the Character and Appearance RT, Day 6 AM Session 1.

⁵³⁵ MDZ/A28.20.

⁵³⁶ MDZ/L7 Appendix B condition 6.

270. Third, and tied in with that, other conditions of the deemed planning consent require hard and soft landscaping details to be agreed with and approved by IoACC.⁵³⁷

Assessment

271. It is against that background, of a thorough SLVIA following all required processes and best practice, and those incorporated mitigation measures, that we then turn to the seascape, landscape, visual effects of this project. This is split into two components – the effects on the Seascape and Landscape Character and AONB/Heritage Coast designations (i.e. the seascape/landscape impacts), and the effects on visual receptors (the visual impact).

272. Turning first to the seascape/landscape impacts, these have been comprehensively covered in the SLVIA.⁵³⁸ That provides important background for consideration of the three issues that were raised in the RT: effects on the special qualities of the AONB, the setting of south stack, and the cable landfall. Effects on seascape and landscape character areas were not really disputed. Table 24-10 lists eight of the seascape and landscape character areas where the effects are predicted to be limited. Table 24-11 then lists the five seascape character areas most likely to be affected by the project, of which only two (SCA 13 – Holyhead Mountain and SCA 14- Rhoscolyn) are likely to have at least a moderate impact which is significant, with the potential effects mainly associated with the west facing slopes of Holyhead Mountain and coastline between South Stack and Penrhyn Mawr. If we then look at the effect of the project on the special qualities of the AONB (the first main issue at the RT), it is broadly agreed by all stakeholders and Menter Môn that there are predicted significant effects on the AONB.⁵³⁹ The AONB's special qualities include expansive views and seascapes, and peace and tranquillity. Mr Myers though explained that the effects are localised and apply to part of the AONB (albeit a distinctive one) rather than the whole designation.⁵⁴⁰ The construction of the scheme would introduce new man-made elements into the area which would affect its special qualities. Menter Môn accepts that. However, you also heard from Mr Myers that it would not

⁵³⁷ MDZ/L7 Appendix B condition 6.

⁵³⁸ MDZ/A25.24, see paras. 189 – 251.

⁵³⁹ MDZ/A25.24, see paras. 219 -251.

⁵⁴⁰ Simon Meyer's Evidence Day 6, and see MDZ/A25.24 paras. 244-249.

prevent those from being appreciated – the coastline would remain wild and rugged, the expansive views over the sea would still be available, and the project has a defined life (albeit a long one), so the effects would be reversed.⁵⁴¹ Everything possible has been done to minimise the effects that there are.

273. While we are on this topic, we raise the matter of the Triangle (sought by NRW). Again we heard a very fair assessment from Mr Myers, acknowledging that expanding the restricted zone to the Triangle would make some differences to the impact on the AONB. Moreover, as you noted it might reduce the views for some very specific receptors.⁵⁴² However, Mr Myers also concluded that it would not make a difference to the overall assessment – there would still be a significant effect. Ms Maidment, too, seemed to consider that although there would be an improvement, there would still be a significant effect, although to put NRW's case at its highest it seemed she thought the improvement would be greater than that assessed by Mr Myers.⁵⁴³ In any case, however, the fundamental equation for the Welsh Ministers remains the same because there is still a significant impact.⁵⁴⁴ Against that, you also heard from Dr Orme on the impacts this would have on the project, and his illuminating campfire kindling analogy. The area in issue is one of the better areas of tidal resource. It is also one of the deepest areas. To help kick-start an entire industry, some of the best areas – such as this one - need to be available to enable floating devices.⁵⁴⁵ The project (despite some suggestions from NRW) has already compromised in setting up the MDZ to accommodate SLVIA concerns – the entire Gold Area is a compromise, the area available for visually prominent devices has already been reduced by 73%.

274. Second, turning to the setting of south stack, the key matter between Menter Môn and NRW is again the Triangle. We don't intend to rehearse the argument again - Ms Maidment seemed to suggest that including the Triangle would mean there is not a significant effect on the setting of south stack. Mr Myers' conclusions were that there

⁵⁴¹ Ms Maidment raised the issue that the project could be repowered or another scheme would follow this. That is entirely speculative and we are concerned here purely with the Order before you, which is limited to 37 years.

⁵⁴² Simon Meyer's Evidence Day 6, AM, Session 2.

⁵⁴³ Day 6, PM Session 2.

⁵⁴⁴ Simon Meyer's Evidence Day 6, AM, Session 1.

⁵⁴⁵ Dr Orme evidence Character and Appearance RT Day 6 PM Session 1.

would be some reduction in the effects of the project on the setting of South Stack, but that these would have limited influence on the overall judgments stated in the SLIVA.

275. Third, with regard to cable landfall, this concerns a particular part of the AONB and again we are dealing with a fall-back option if Menter Môn's preferred HDD approach is not possible. The SLVIA acknowledges that, if the cliff-face option has to be pursued, there would be significant but localised effects.⁵⁴⁶ You have a photomontage from Menter Môn illustrating what this will look like from the Isle of Anglesey Coastal Path/Wales Coast Path⁵⁴⁷ – a location specifically selected to represent a publicly accessible location relatively close to the cable landfall.⁵⁴⁸ If the project must go down this route (and we reiterate this would only be if it had no other choice), then a Landscape Management Plan offers, in Mr Myers' view, a suitable mechanism to secure appropriate mitigation. An outline plan is in the core documents,⁵⁴⁹ a detailed one will be secured via a condition in the Deemed Planning Permission.⁵⁵⁰ There would therefore need to be approval by IoACC and we expect that to involve consultation with NRW. Turning to particular concerns raised:

- (i) Some concern has been expressed by IoACC and NRW about cables extending by up to 2m over the top of the cliffs.⁵⁵¹ This is still to be worked out – as Mr Myers explained the engineering detail was based on the cliff face being perpendicular – i.e. with a sharp corner at the top. However on more detailed evaluation the clifftop has a more gradual curve, meaning that it is likely they could be integrated more effectively with the landform. Any extension above the cliff face, even one of up to 2m, could be mitigated following construction through measures including small local landform alterations and reinstatement of the adjacent field boundary – this would all form part of the eventual landscape management plan developed, and agreed in the planning conditions.⁵⁵²

⁵⁴⁶ MDZ/A25.24, para. 327.

⁵⁴⁷ REP007 Appendix R-A.

⁵⁴⁸ We know this view is of particular importance to Mr Llewellyn. We would flag that during the technical working group meetings did NRW or IoACC suggest a visualisation from the platform he refers to or Mr Llewellyn's home. See the evidence of Mr Myers, Day 6 AM session 1.

⁵⁴⁹ MDZ/A28.20.

⁵⁵⁰ MDZ/L7 Appendix B.

⁵⁵¹ MDZ/A28.19, para 23.

⁵⁵² Inquiry Doc 098 – Proposed conditions 5, 7.

- (ii) NRW have expressed concern that the mitigation we propose might be difficult having regard to the ecology of the area, but as you heard from Mr Myers it is expected that the Landscape Management Plan would be integrated with the ecological management plan.⁵⁵³ This integration would be achieved through the planning condition that requires this plan to be finalised and agreed with IoACC. It is fully expected that, as would be typical, IoACC would consult with NRW as part of this process.⁵⁵⁴
- (iii) Mr Llewellyn and Ms Maidment raised the significant impact on those in the immediate vicinity. Ms Wong added that this affected kayakers. We accept that, but again as Mr Myers has noted this is localised.

276. Turning, then, to the effect on visual receptors, three broad groups have been identified – local residents, people engaged in onshore recreation, and people engaged in offshore recreation. All are addressed in detail in the SLVIA.⁵⁵⁵

277. With regard to local residents, no significant effects were identified in relation to the Holyhead, Trearddur and Rhosneigr settlements, largely due to the intervening distance or landform. During the inquiry you specifically raised the view from Raven's Point Road, Trearddur, which has been assessed to have a slight to negligible magnitude of change (moderate/minor and not significant effect).⁵⁵⁶ Fairly, though, (and notwithstanding the fact that it is not the purpose of the planning system to save a particular person's views) significant effects have been identified in relation to the dispersed properties to the north west of Trearddur, including those within the community of Penrhosfeilw. Crucially, As Mr Myers outlined⁵⁵⁷ Menter Môn have not and were not asked to undertake a residential visual amenity assessment because the structures have a limited vertical scale and the separation distances mean they would not have that degree of prominence. As Mr Bell

⁵⁵³ Contributions of Ms Maidment and Mr Myers, Day 6 PM Session 1.

⁵⁵⁴ Inquiry Doc 098 – Proposed conditions 5, 7.

⁵⁵⁵ See MDZ/A25.24 SLVIA para 252ff, albeit the receptors are grouped very slightly differently to how they were summarised during the Character and Appearance RT.

⁵⁵⁶ Character and Appearance RT Day 6 PM Session 2.

⁵⁵⁷ Character and Appearance RT Day 6, PM Session 2.

confirmed, we are not dealing with overbearing effects in policy terms that would convert a property into an unattractive place to live.⁵⁵⁸

278. With regard to those engaged in onshore recreation, in particular those using long distance footpaths, promoted cycle routes, public rights of way and Open Access Land, and visitors to the beaches and South Stack RSPB reserve – again the SLVIA fairly acknowledges there will be significant effects on these receptors, though these are more localised in relation to linear/transitory receptors and for visitors to beaches.

279. With regard to offshore recreation, this has been considered in the SLVIA as noted above. You have also heard at length from Ms Wong regarding the views of kayakers.⁵⁵⁹ Again, the overall view of the SLVIA, by reference to the agreed viewpoints identified, is that there is the potential for significant effect on offshore recreational receptors within approx. 2km of the MDZ. It should be noted, though, that those engaged in sport or recreation may not be wholly focused on the view.⁵⁶⁰ To the extent the suggestion is made that the potential visual effects on recreational offshore receptors has been ignored, it can and should be dismissed.

280. And, just as a quick aside here – of course all of the impacts and benefits of the project are going to have to be weighed up together, but we would ask you to recall the evidence of Dr Orme that areas where this technology can be deployed is geographically limited, and the evidence you heard from Mr Myers that there is a correlation between the more wild rugged landscapes and areas suitable for tidal projects. He suggests that there are comparisons with consented emergent devices such as the Skerries (also off the Anglesey Coast) and PTEC off the Isle of Wight, where significant seascape/landscape and visual

⁵⁵⁸ Character and Appearance RT Day 6, PM Session 2. For the avoidance of doubt, it is not disputed and Mr Bell confirmed that great weight must be given to the AONB (see PPW MDZ/D1 para 6.3.7) and MDZ/D7 the AONB Management Plan Review. You will also have noted the evidence of Mr Myers that the “overbearing” issue has never been a required assessment for recreational receptors on land, as opposed to properties.

⁵⁵⁹ Character and Appearance RT Day 6, PM Session 2.

⁵⁶⁰ Indeed, Sir, as you raised in the RT the recreational pursuit itself can and will continue – the enjoyment comes from the pursuit not wholly the landscape in which it occurs. Ms Wong suggested there are concerns about safety – which we don’t accept but will come to below – and then that this would detract from the general sense of the area, compared to other places like Oban, Pembroke and Cornwall. She then noted those three are “Threatened” in the same way and that “the interface between recreational users and such structures will have to be addressed in the same way. This, in our submission, simply collapses into the fact that the sea is changing and current users will have to adapt to that. Otherwise, tidal stream energy and the benefits it brings can never develop. Kayakers do not have a monopoly on using the sea.

effects were also predicted but, notwithstanding these, the projects were consented. The latter in particular is in a section of AONB close to St Catherine's point, a landmark (like the South Stack lighthouse) which is a focal point. Now, of course, these are not precise analogies (Mr Myers acknowledged, very fairly, that the comparators are not of this scale and that distances offshore may not be the same), but the key point is they were consented notwithstanding the predicted effects.⁵⁶¹

Compensation

281. One final point to touch on before leaving this section – it has been agreed with IoACC that compensation measures will be paid on a phased deployment basis, delivered through an s. 106 agreement. A full version is contained in the documentation.⁵⁶² This too will be secured by condition.⁵⁶³ These measures will be payable toward undertaking landscape improvement works for land owned or managed by the Council, providing funding to projects undertaking landscape restoration or enhancement programmes, directly funding landscape improvement work on third party owned land, and improving public access to land including the provision of new public rights of way or improvement of existing rights of way. It has been agreed with IoACC these address its concerns that the proposals could be contrary to the JLDP policies PS19, AMG3 and AMG4.

Overall

282. We summarised our position at the start of this section and do not re-state it here.

4. Socio-economic matters

283. Turning, then, to socio-economic matters, the majority of the time at the socio-economic RT was taken up with matters in issue between Menter Môn and SCC/RYA. This largely focused on the economic impacts on tourism reflected through alleged impacts on marine related activity. We are going to deal with that below and the complaints they make, but it should be noted at the outset that this is a small section both

⁵⁶¹ Mr Myer's Evidence, Day 6 Am Session 1 and PM Session 1.

⁵⁶² MDZ/L7 Appendix C.

⁵⁶³ MDZ/L7 Appendix B Condition 21.

of local tourism and the local economy, as Ms Wong for SCC accepted when you put that to her.⁵⁶⁴

Summary

284. We draw our overall summary and big picture points from the evidence of Mr Bell on day 1, Dr Jones on day 5, and keeping in view the fact that there is now agreement between Menter Môn and IoACC on this topic.⁵⁶⁵ Key points we put to you and the Welsh Ministers:

- (i) First, the benefits of this scheme, with regard to matters like job creation and indirect benefits, have been outlined in Chapter 25 of the ES.⁵⁶⁶ These have been reiterated in the unchallenged evidence of Mr Bell and we took you to them earlier in this closing. To recall some highlights – up to 467 jobs per year during construction and 456 from operation and maintenance, utilisation of the local workforce and supply chain, an additional 04%-4% to the annual economic activity of Anglesey, and a local annual spend of between £3.2m-£41.4m annually for the life of the project. We also refer you to Chapter 4 of the ABP Mer *Study of the Socio-economic benefits of the Marine Industries* (Feb 2019)⁵⁶⁷ which, though not specific to our project, outlines some of the socio-economic benefits of the industry.
- (ii) Second, and almost uniquely in our experience, rather than simply “talking a good game,” Menter Môn is going further and seeking to secure those benefits through conditions on the deemed planning permission.⁵⁶⁸ Conditions 17-21 of that deemed planning conditions⁵⁶⁹ secure a Tourism and Recreation Monitoring Strategy, a Promotion and Interpretation Strategy, a Skills and Training Action Plan, a Task and Finish Group, and a Supply Chain Action Plan, all aimed at mitigating any possible impacts and enhancing the socio-economic benefits of this proposal for the region.

⁵⁶⁴ Day 5, PM session 1.

⁵⁶⁵ MDZ/L7.

⁵⁶⁶ MDZ/A25.25, see in particular para. 161 onwards.

⁵⁶⁷ POE013.

⁵⁶⁸ MDZ/L7 Appendix B.

⁵⁶⁹ Inquiry Doc – 098.

- (iii) These have been agreed with IoACC. Although IoACC had initial concerns, they have now made clear, both in the SoCG and in Mr Solomon's representations to this inquiry⁵⁷⁰ that they are comfortable their concerns have now been addressed though the imposition of the relevant conditions.

285. We outlined the levels of public support for these benefits earlier – we don't go through them again but again simply remind you of them.

286. Taking that all together, our position is very clearly that the scheme will have a beneficial socio-economic impact on the area. Menter Môn has gone further than many other energy schemes in setting out and agreeing mechanisms to monitor the situation and, if it turns out we are not right and there are adverse impacts, mitigations can be deployed. As Mr Solomon confirmed, IoACC's position is that any negative effects can be monitored, mitigated, and offset by the benefits of the project.⁵⁷¹ That, we submit, is itself enough for the Ministers' decision.

Recreational amenity

287. We will now go on to talk about recreational amenity of sea users and any (potential) effects on the economy, but again Sir we urge you and the Welsh Ministers not to lose sight of the fact that the time spent dealing with these arguments is disproportionate to the level of socio-economic impact in issue. We also remind you of the policy steer in NPS EN-1 that alleged socio-economic impacts, unsupported by evidence, should attract minimum weight. This is particularly so where the complaints are made by well-resourced organisations (such as the RYA) who could do their own homework – it is not enough to throw muck at the wall and simply hope some of it sticks.

288. By way of a preliminary observation we would like to remind you of three key facts which we submit colour how the Welsh Ministers should weigh the arguments put against us. We think it should be possible for all parties to agree that (1) this project would help answer a need for low carbon energy production, (2) that this project presents an

⁵⁷⁰ Day 5, AM Session 1.

⁵⁷¹ Mr Solomon evidence, Day 5 PM Session 1.

opportunity for the Isle of Anglesey to become a low carbon energy centre, and (3) that there is a pressing need for jobs in the Anglesey area, and so the job benefits we have outlined should be considered a benefit. Unfortunately, when you look at how some of the objectors have responded to these (relatively uncontroversial) points, you begin to see that their approach undermines the credibility of their arguments:

- (i) Addressing the first point (low carbon energy production), Mr Hill suggested that the RYA also supported action to address climate change, and that this was the only marine renewables project in which the RYA has formally objected.⁵⁷² However
 - a. when pressed as to why RYA were objecting to this particular proposal as opposed to other projects (like wind) using a PDE it was because of safety issues (we come back to those) and because this was innovative technology whereas others (such as windfarms) were a known quantity.⁵⁷³ In our view this suffers from two flaws. First, as we have discussed regarding data gaps in the scientific knowledge (and the opportunity this project provides to remedy that in a highly controlled way) - this project not been done before and there have not been longitudinal studies (a point also made by Ms Wong).⁵⁷⁴ This is an opportunity to rectify that. Second, we can see no logical link between the fact that the technology is innovative and whether it will affect the socio-economics of the island. Particularly when matters such as landscape and safety are otherwise assessed and considered acceptable.
 - b. On questioning⁵⁷⁵ it became clear from public RYA documents that that the RYA had in fact objected to other tidal projects⁵⁷⁶, and Mr Hill then sought to suggest instead that what he meant was that this is the first time the RYA has gone to a public inquiry level objecting to a TWAO. Given that this is the first TWAO for tidal project that means little.
- (ii) When asked to address the second benefit (promotion of the Isle of Anglesey), Mr Hill suggested this was “*beyond the RYA’s remit*”, and that steps should be taken to

⁵⁷² Socio-economic RT, Day 5 AM session 2.

⁵⁷³ Socio-economic RT, Day 5 AM session 2.

⁵⁷⁴ Socio-economic RT, Day 5 AM session 2.

⁵⁷⁵ Socio-economic RT, Day 5, PM session 1.

⁵⁷⁶ These objections are referred to in the RYA document attached to its Statement of Case.

ensure it does not damage the UK's "*thriving*" recreational boating industry. When pressed, he could not provide any figures to support the view that the recreational boating industry in Wales or Anglesey was "*thriving*."

- (iii) When asked to address the third benefit (job creation), Mr Hill simply said he was not qualified to talk about that and to state that boating had an industry behind it. Again, when pressed, he refused to accept the jobs created were of benefit. We submit that there really is no basis any reasonable party could give for not considering job creation in a deprived area like North Wales is a good thing; Mr Hill's position and that of the RYA in this regard was risible. It is of course of benefit for all of us for the relevant participants to recognise their limitations and not try to give evidence on matters outside their expertise. However, the fact that RYA feels constrained not to agree with such a basic proposition demonstrates the exceptionally narrow view through which it is approaching this case.

289. Drawing all of those threads together it becomes clear that what we have here is a particularly egregious strand of NIMBYism known as NIMBAism – not so much “not in my back yard”, more “not in my boating area.” The RYA supports renewables, provided they're not where its members want to sail. They consider themselves qualified enough to take a view on the UK's “thriving” boating industry, but not enough to discuss promoting employment on Anglesey. They want to support boating industry jobs, but cannot take a view on any others. The RYA might very reasonably say it is the representative body for recreational boating and so that is its concern. That might well be right, but it is therefore important for the Welsh Ministers to appreciate that the RYA's representations are not, therefore, starting from a balanced viewpoint. Indeed while we don't particularly wish to add to an already lengthy closing by belabouring this point, the RYA's obstructive attitude to these proceedings can clearly be seen in the events relating to the Statement of Common Ground we failed to agree with them. We sent them a draft on 02 November 2020. No response was received. In the socio-economic RT Mr Hill then announced the RYA would not agree a statement of common ground – with which we expressed strong disappointment. On 28 January, just before 6pm the RYA then returned the draft statement of common ground – from which it was clear almost nothing was in fact agreed. This was one working day before the inquiry was due to resume the navigation session.

Eversheds Sutherland responded to say that, given the gross lateness of its return we would not be able to respond.

290. Against that background, we turn to the detail. Chapter 25 of the ES addresses the socio-economic impacts of the development. In broad terms, it establishes a baseline, and goes on to assess the socio-economic impacts of the project. The summary is outlined at Table 25-38, and we have just been through many of the benefits. That is the first key document for Welsh Ministers and pausing there we wish to make three points about this:

- (i) First, the baseline and what was assessed is far broader than recreational water sports. If you look at section 25.4 and in particular para. 62, you will see that this assessment covers Population and Demographics; Employment and GVA; Skills, Training and Education; Housing and Accommodation; Commercial Fisheries; Shipping and Navigation; Tourism; Recreation; and Cultural Heritage. At para. 164 you will see the impacts assessed were in social issues, economic issues, jobs and employment issues, skills and training issues, the effects on tourism, recreation, shipping and fishing and infrastructure issues. The impacts subject to detailed assessment are outlined at para. 171. The key point to highlight is that this is that this is a broad study, look at all sectors of the economy.
- (ii) A concern has been raised regarding the extent to which water sports recreational amenity users feature in that baseline. We refer you in particular to paras. 25.4.8. That looks at the national, regional and local level. At the regional level, it refers to both kayaking and sailing as a popular regional activities across North Wales (see para. 131). At the local level, sailing is outlined at para. 139,⁵⁷⁷ and kayaking at para. 142.⁵⁷⁸ The consideration at para. 139 also cross refers to the shipping and

⁵⁷⁷ "Anglesey has a thriving sailing community. The island is home to six yacht clubs catering for both coastal dinghy sailing to offshore yachting. During August each year, the Island hosts the Menai Strait Regatta, with the 2018 regatta attracting approximately 100 boats. A highlight of this Regatta is the Round Anglesey race which has taken place since 1966 and which is a non-stop circumnavigation of the Island. Much of Anglesey coastline is the subject of low to moderate amounts of nearshore, recreational boating activity (UK Coastal Access Recreational Boating Atlas) – see **Chapter 15, Shipping and Navigation**. "

⁵⁷⁸ "Anglesey is a popular destination for sea kayaking for novices and experienced paddlers. Sea kayaking takes place all around the island's coastal waters, but the north coast of Anglesey has a challenging combination of steep cliffs, strong tidal streams, offshore islands and sheltered bays. The area of sea around Holy Island including the MDZ is particularly challenging in nature and generally only recommended for experienced kayakers (Krawiecki and Biggs, 2013). The sea kayaking community, including local clubs and local kayaking training providers, will

navigation chapter of the ES , where you will find a significant amount of detail, both there and in the NRA and NRAA on use by boats. That ES was scoped with PINS, which did ask for more information and tourism and recreation but not boating specifically.⁵⁷⁹

- (iii) Mr Hill further queried the extent to which long distance cruising from Scotland Northern Ireland, the Isle of Man and the Republic of Ireland featured in the baseline. Again, to the extent these contribute to the local economy through matters such as job creation and visitor spend, that is caught.

291. Dr Jones then undertook a Supplementary Tourism and Recreation Assessment⁵⁸⁰ between January and March 2020. Again we emphasise this should be kept in context – it is purely focused on tourism and recreation, and the fact this has been undertaken does not detract from the validity of the more general ‘big picture’ assessment undertaken in Chapter 25 of the ES. He ran through the key points from this in his oral evidence, and see too section 6 of his proof of evidence.⁵⁸¹ In short, this undertook an analysis based on (1) publicly available data published through the NOMIS system (a service provided by the ONS) (2) interviews with local businesses and (3) desk top case studies to complement (2). This assessment, informed by the NOMIS data, acknowledges the importance of tourism and recreation to Anglesey – it accounted for 16.2% of all those employed on Anglesey, and 41% of total employment on Holy Island. Of this 41%, 86% was accommodation and food, the remaining 14% in arts, entertainment and recreation. The study then sought to interview 14 businesses, selected because of their location and because they could provide a broad view of the tourism and recreation sector. Of that fourteen, eight responded. Of those eight, five were land-based, and three marine based. This split, Dr Jones considered, allowed Menter Môn to capture different aspects of the tourism and recreation sector. The main findings of those interviews were that:

- (i) The Morlais project *could* adversely impact the offering of the area to tourists. For example, through restrictions on kayaking routes, the impact on eddy currents,

be kept informed of the development of the site particularly during construction period and the cable laying closer to shore. This will be backed up by the introduction of relevant signage.”

⁵⁷⁹ MDZ/A8, pp46-47.

⁵⁸⁰ MDZ/H1.

⁵⁸¹ MDZ/P6.

traffic congestion during the construction phase, access to the coastal paths, and the impact on the scenery.

- (ii) Businesses believe the Morlais project *could* have a positive impact on the local tourism sector, and there are businesses that have already experienced this. Contractors and engineers working on the development stay in the local area, which benefits local hotels and restaurants and this trend is only expected to grow as the Morlais development progresses. The importance of 'business tourists' was highlighted in the interviews (i.e. those who come to the area on business during the week will return on holidays with their family).
- (iii) There are businesses that believe tourists will be interested in seeing the tidal energy development (i.e. 'industrial tourism'), and that Morlais is a continuation of Anglesey's rich history of innovation and relationship with the sea. Experimentarium in Copenhagen was given as an example of how new technology and innovation can be used to attract visitors to the area.

292. The case studies which complemented these interviews indicated that the production of marine energy has no, or a negligible impact, on local tourism activities. He highlighted that the Orkney islands, (a helpful comparator as it is also attractive for history and culture) has not suffered a reduction in visitors since turbines were installed there – from 2013-2017 the value of visits to the Orkneys had increased from £31.1 million to £49.5 million. Turning to the Pembrokeshire Demonstration Zone, research by Swansea University's Marine Energy Research Group has found that in an area where the marine environment contributed to 78% of visitors' enjoyment of the area, only 3.5% would be put off from visiting due to marine renewable energy developments. Finally, in Gwynnt Y Mor a 576MW offshore wind turbine array has had little, if any, impact on the tourism sector in Llandudno. You queried whether this last example was a useful comparator given that Llandudno is more built up than the instant area, and we submit that Dr Jones response (that much of the tourism economic of Llandudno is sea-front based because of its open views, now with windfarms) is answers that concern. Moreover, you can take comfort from the fact his research is also based on the Orkneys.

293. Now, the steps taken by Menter Môn do not end there (we will come onto mitigations in a moment), but further queries have been raised about this supplementary assessment by RYA and SCC which it would do well to deal with now.

- (i) First, questions have been raised about the adequacy of the interviews. As Dr Jones made clear⁵⁸² he is happy that the interviews with businesses and local stakeholders were properly obtained and taken into account. We need say no more about that.
- (ii) A question was raised by SCC about the utility of the Marine Energy Research Group paper, given that (a) it asked a hypothetical question and was not itself a longitudinal study and (b) water sports participants were underrepresented in the response. Ms Wong for SCC said that they had put the same question in their surveys and received a different response, and then asked how the two should be balanced. There are three responses.
 - a. First, as already outlined, there are no longitudinal studies – this is a gap to fill, Dr Jones is working on the best available information.
 - b. Second, with the greatest of respect to SCC, if choosing between two surveys you give precedence to the one published in a leading peer reviewed journal undertaken by academics.
 - c. As Dr Jones pointed out, the authors use both the “travel costs” method and “contingent valuation” method of assessment, the former takes into account actual costs incurred by visitors. There is therefore actual data behind that argument and it is not purely hypothetical, as suggested by SCC.
- (iii) A question was raised by RYA about the use of NOMIS data. The RYA suggested that the Seabed User and Developer Group considered that the use of Standard Industrial Classification (SIC) codes (used to inform ONS data) does not conform well to marine activities. We have six points
 - a. First, this is a remarkably detailed economic analysis from an organisation that felt constrained not to be able to say that creating jobs in North Wales is a good thing.

⁵⁸² Socio-economic RT Day 5, AM session 2.

- b. Second, NOMIS is a service provided by the ONS, to give access to the most detailed and up to date UK labour market statistics from official sources. It is government data.⁵⁸³
 - c. Third, as you will recall from Dr Jones, NOMIS data is frequently relied upon by academics and other professionals
 - d. Fourth, it captures information from multiple sources.
 - e. Fifth, we note that IoACC's representation of 11 May 2020 supports the use of NOMIS datasets.⁵⁸⁴
 - f. Sixth, we are not entirely sure where this goes. The assessments done indicate an economic benefit to the area. If the RYA are going to assert that is wrong, or that the economy is actually driven by something else (such as recreation), they needed an economic assessment to support that. None is provided.
- (iv) The RYA sought to criticise the number of organisations contacted for interview, in particular suggesting boating and sailing clubs had not been contacted.⁵⁸⁵ Our responses are:
- a. there were attempts to contact other businesses (including, for example, sea kayaking UK) but they did not respond.
 - b. as you heard from Dr Jones – accommodation and food are the main drivers of tourism related economic activity in the area, and so the focus is on ensuring that is properly represented.
 - c. The RYA prevented Menter Môn from engaging directly with boat clubs.

294. So, notwithstanding the criticisms made it is our submission that there is ample material on which the Welsh Ministers can reach a considered view of the socio-economic impacts of this project. And we re-emphasise that these should be considered over the entirety of the economy – not one niche, no matter how lengthy its representatives' submissions. It is our view that this project will have a beneficial socio-economic impact, for the reasons outlined above. You also heard from Dr Jones that there may be the additional benefit of industrial tourism – of people coming to see how energy is made from the sea, as they do in the Orkneys. Indeed, Dr Jones told you that in the Orkneys

⁵⁸³ MDZ/P6 Dr Jones Proof of Evidence fn 1.

⁵⁸⁴ FEI Rep 00 para. 35.

⁵⁸⁵ Socio-economic RT Day 5 AM session 2.

local guides have been given additional training because of the interest in this, there is no evidence it has cost jobs.⁵⁸⁶ Now Sir you queried that, pushing Dr Jones on whether it would not be fair to assume that there must be some degree of loss from that portion of tourism activity that is associated with birds, open space, and an absence of development. However he responded very fairly that there was no clear evidence to suggest a drop in tourists or visitors – there is no evidence elsewhere and no indicators that would happen here.⁵⁸⁷ There may well be benefits. However, notwithstanding all of this, conservative approach, as outlined by Dr Jones, Menter Môn has assumed a neutral impact on tourism.⁵⁸⁸ The overall economic benefits are in any event clearly positive.

295. But what if we're wrong? Well, the third big part of our case on socio-economics is this: the mitigations that Menter Môn has put in place. We have gone further than many other developers and agreed to secure by planning condition surveys by which the socio-economic impacts of the project will be monitored, and mitigated if they are negative. This approach has been agreed with IoACC and as you heard has assuaged their concerns.⁵⁸⁹ Both yourself and the Welsh Ministers can take comfort from this – a plan is in place. As Mr Solomon confirmed, the IoACC position is that wherever the baseline is considered to be sitting, mitigation is in place to address any potential negative impact of the scheme.⁵⁹⁰ You also have before you a supplementary kayaking and sailing assessment and monitoring plan.⁵⁹¹ We anticipate that specific kayaking and sailing monitoring will form part of the wider plan secured by condition 17 of the deemed planning permission.⁵⁹²

296. Finally against that detailed work background, let's talk about actual adverse effects – because frankly there is not a great deal of meat that is provided on that. Limited points have been taken, primarily by SCC and RYA, so the concern is with a small subsection of the economy not the economy as a whole. Notwithstanding that, you tasked both RYA and SCC, if they were making a positive case that there were to be actual adverse effects,

⁵⁸⁶ Socio-economic RT, Day 5 PM session 1.

⁵⁸⁷ Socio-economic RT Da5 5, PM Session 1.

⁵⁸⁸ Socio-economic RT, Day 5 PM session 1.

⁵⁸⁹ Evidence of Dr Jones Socio-economic RT, Day 5 PM session 1; Evidence of Mr Solomon Day 5 PM session 1.

⁵⁹⁰ Socio-economic RT, Day 5 PM session 1.

⁵⁹¹ MDZ/A28.58.

⁵⁹² See Inquiry Doc – 098 .

to lay out both the pathway by which that could occur, and the vector (i.e. magnitude of harm) for which they contended. We will address each in turn. However, we take this opportunity to remind you of two key points that we say bear materially on this. First as already detailed, that the position of the MDZ has been driven by energy and scientific requirements. Second, co-existence is to be encouraged if at all possible. This is recognised by policy ECON_02 and the supporting text of the WNMP. The nature of the sea is changing. The strong policy imperative toward tidal energy which we have already outlined above necessitates this. If tidal resources are to be used for energy generation, that is something that other users of the sea, such as kayakers and sailors, will have to adapt to. They have no monopoly on this shared resource. This is something Miss Wong very fairly acknowledged when you put it to her.⁵⁹³ Let us turn, then, to the alleged harmful impacts of the project – to the extent there are any.

297. For the RYA, Mr Hill started off by saying that pathways can only be demonstrated once a baseline is created, and that it is not for the RYA to demonstrate pathways when data is deficient.⁵⁹⁴ When you pressed him, Mr Hill could not come up with any pathway. The best that was said was that there were 2,500 RYA members there and c. 700 boats, one club was concerned there would be a loss of membership and another club was close by. He stated it would be the impact on those clubs, their membership and what the knock-on effects would be. Those, however, are impacts, not pathways. He did not, in the socio-economic RT, identify how one could get from devices in the water to a reduction in club membership. He specifically did not highlight navigational impacts as a pathway (and we highlighted this specifically, so he could have come back on it). Slightly later he raised the prospect of the impact on the long distance cruising market⁵⁹⁵ but again did not provide a pathway. The RYA did not provide a pathway until the first navigation RT (a week later) – so clearly they did not think of it before it was specifically raised at the socio-economic RT, and that effects the weight you should give to their case.

298. For SCC Ms Wong stated that effectively there would be a period of adjustment and that, while local kayakers could adapt there was a question whether the industry here could recover from that adjustment period because the area would have been rendered

⁵⁹³ Day 5, AM session 1.

⁵⁹⁴ Socio-economic RT, Day 5 AM Session 2 and PM session 1.

⁵⁹⁵ Day 5, PM session 1.

less desirable.⁵⁹⁶ There seem really therefore to be two issues: first, any issues caused by the adjustment period;⁵⁹⁷ second, whether the area would thereafter be perceived as less desirable. As an overarching point, as far as we can tell, with two years' worth of data, there is limited interaction between kayakers and the MDZ.⁵⁹⁸ A point was raised about changes to currents. This is dealt with by a report specifically commissioned for that purpose⁵⁹⁹ and while we acknowledge there would be some change, there is no real basis for it to have any impact on the socio-economics of the area. As you pithily point out, kayaking can still go on. However, overall we also note that in their most recent response to the FEI SCC have said that nobody expects the area will be unusable by kayakers with the MDZ in place.⁶⁰⁰ That is their bottom line and we say it is correct. Really SCC has been very clear about the pathway by which it says the installation of devices will have a negative impact on the local economy: it is the perception of risk. In this case, for reasons outlined below and covered in the navigation session, it is submitted that there is no health and safety impact. The fears are baseless. The question therefore arises to what extent land use consequences would follow from this baseless fear? We submit there is no basis to think that at all:

- (i) As Dr Jones has noted, there is no evidence of there being any negative impact from the installation of these devices. Indeed, the evidence of Mr Dennis was that some kayakers may go to play there.⁶⁰¹
- (ii) As Dr Jones noted, there is some evidence that even more guides will be required, contributing to the growth of the sector.
- (iii) However, Sir, as you noted: the tidal races will still be there. The shoreline will still be there. All of the matters kayakers are concerned with will still be there. Kayakers would simply have some devices to the west. There may be a little less flow, but the flows are still there.⁶⁰²

⁵⁹⁶ Day 5, AM session 1 and PM session 1.

⁵⁹⁷ Pattullo evidence, Socio-economic RT, Day 5, AM session 1.

⁵⁹⁸ MDZ/A28.40.

⁵⁹⁹ MDZ/A31.1.

⁶⁰⁰ EIC012, p. 4.

⁶⁰¹ Day 2 PM public session, Inquiry Doc – 013.

⁶⁰² Day 5 PM Session 1.

299. It is worth spending a moment on the monitoring strategy. This is in development. It can, as Dr Jones indicated, include the involvement of RYA affiliated clubs. It is not denied that further information needs to be collected. It will, again, involve structured interviews and ONS data,⁶⁰³ alongside data collected using automated technology.⁶⁰⁴ Some concerns have been expressed about this, but as you noted that gets into the detail of the strategy proposed – the details are to be ironed out pursuant to draft condition 15 closer to the time. Our submission is (1) this remains a smaller part of the economy as a whole, and a strategy already exists to protect that and (2) we are at something of a disadvantage here because monitoring and mitigation is related explicitly to the pathways of damage are alleged, and Mr Hill won't tell us what those are.

300. Finally, let us turn to the steps this project has put in place to maximise local employment opportunities. Not much time was spent on this during the socio-economic RT, but we consider it a key point. Menter Môn has, as you know, agreed to put in place both a skills training action plan and a supply chain action plan. The Supply Chain Action Plan has been developed through discussion with IoACC and is based on the positive impact of the Gwyness County Council's procurement strategy "Cadw'r Budd yn Lleol". You heard from Mr Gleeson how his company has already met with a number of local companies, and are surprised and impressed by what is on offer. Crucially, you will recall he also foresaw a possibility of rolling out further projects around the UK and France, using the supply chain around Anglesey if it can be upskilled.⁶⁰⁵ There is a significant "first mover" advantage here. The skills and training action plan was also developed through discussion with IoACC and the regional skills manager for the North Wales Regional Skills Partnership. You asked Dr Jones to put this in context – and he did. There are a large number of suppliers on the island who skilled up and obtained various consents and certificates in preparation for Wylfa. Some skills may need to be tweaked, but businesses here are willing and able to take advantage of the benefits of this project. The action plans exist to ensure that.

⁶⁰³ Dr Jones in Socio-economic RT Day 5, PM session 1. Ms Wong asked why the views currently expressed could not be used – that would be self-defeating. The point is to see how matters change once the MDZ is installed.

⁶⁰⁴ Some concerns were expressed by SCC about the technology planned to be used – this is a minor point is the strategy can be developed in consultation with such stakeholders.

⁶⁰⁵ Day 5 PM session 1.

301. This has been a long section – primarily because of the disproportionate amount of time spent on the concerns raised by SCC and RYA. We outlined in summary our position at the start of this session and do not intend to do so again.

5. Non-biodiversity marine matters - navigation

302. We come, then, to non-biodiversity marine matters - navigation. Menter Môn cannot really put its position better than was contained in the summary of Cdr. Brown, whose qualifications we went through during the navigation RT and which speak for themselves. Menter Môn recognises that this project will introduce items into the sea that were not present before, and that this will inevitably alter the risk profile associated with the West Anglesey sea area. It is committed to maintaining the safety of water users. It has commissioned two full NRAs – an initial NRA (the “**First NRA**”) and another one (the “**NRAA**”)⁶⁰⁶ following substantial changes to the project (the introduction of an 8m UKC zone and the introduction of the 20m UKC zone)⁶⁰⁷ specifically designed to mitigate the risks identified in the First NRA.⁶⁰⁸ Notwithstanding clarification being sought over the survey data used and quality of the NRA and NRAA, as agreed by the MCA both of these assessments adhere to the requirements of Marine Guidance Note 543 (“**MGN 543**”) – the relevant MCA Guidance. The NRAA assessed all risks associated with the project were as low as reasonably practicable (“**ALARP**”) or lower. We also note Sir the three key propositions you outlined at the start of the navigation RT – marine safety is also regulated

⁶⁰⁶ MDZ/I1.

⁶⁰⁷ You will recall a request for clarification about the UKC choices. The MCA had asked for some information but this was provided and the matter with them resolved – see the Statement of Common Ground at MDZ/L8 pp. 16-17. The RYA then sought further clarification regarding how the times of the year were chosen (Navigation RT, Day 10 PM Session 2). Section 10 of the NRAA (MDZ/I1, pp74-78) explains that the UKC of 8m and 20m were initially calculated using the MCA Under Keel Clearance Policy Paper, supplemented by a local consultation in order to ascertain UKC that would “allow maintained and safe navigation within the MDZ”. The feedback is summarised in Table 10-2. Cdr Brown also explained a 30% safety margin is applied so that, in the worst storm, with a ship trimmed in the worst way, facing the worst waves, there is still “no chance +30%” of a vessel striking TECs.

⁶⁰⁸ During the second Navigation RT (Day 11), PM Session 2, Mr Pattullo for SCC raised a query regarding risk to life. Although the query was not wholly clear, he seemed to be asking about the grading of risks between the NRA and NRAA. Put shortly, the discrepancy arises because the NRAA was assessing a different, safer design than the NRA – it is not the case that a risk was “translated” between the two as seems to have been understood. In closings, SCC, seem to be asking about the grading of risks *within* the NRA. This is a different point, and is a function of the MGN 543 required NRA process, which this is not the place to challenge.

by the ML, there is no reason to doubt a licence would be issued at all,⁶⁰⁹ but there is also no reason to doubt the competence of the regulator in this case (so, NRW can be assumed to adequately protect users' safety). Linked to this, we have addressed above the relevant markings required by Trinity House and how these will be assessed as part of the DDP – we do not propose to say any more here but signpost that for you as it was also discussed in the navigation RT, and of course bears on safety.⁶¹⁰ The issues on which the parties have disagreed is:

- (i) Whether there is a loss of amenity;
- (ii) Whether there is enough sea room in the inshore passage;
- (iii) The extent to which other vessels are displaced;
- (iv) The extent of collaborative engagement; and
- (v) The interaction of Kayakers with the MDZ.

303. None of these, we say, is a reason not to grant consent.

304. As a further preliminary point you will note statements of Common Ground on shipping and navigation have been agreed between Menter Môn and both Trinity House⁶¹¹ and the MCA.⁶¹² Reference will be made to portions of this where relevant.

305. With regard to the MCA, you heard from Mr Salter that, although there were three things still in discussion (space of the inshore route, displacement of vessels, and kayakers risk) only the first and third had not been agreed. The MCA is satisfied on the displacement issue, as we will come to.⁶¹³

⁶⁰⁹ Mr Pattullo for SCC expressed doubts over whether NRW might issue a ML because of the concerns expressed by SCC. However, he stated when you asked that NRW had given no reason to SCC to think that.

⁶¹⁰ Evidence of Tom McNamara and Capt. Trevor Harris, Navigation RT 1 (Day 10) AM Session 2

⁶¹¹ MDZ/L9.

⁶¹² MDZ/L8.

⁶¹³ Mr Salter's evidence, Navigation RT Day 10 AM Session 1.

306. With regard to Trinity House, you heard from Mr McNamara that Trinity House has worked closely with Menter Môn to provide suggested marine licence conditions and changes to the Order to address their concerns. This, Mr McNamara confirmed, we have now done, and provided we submit the revisions to the Order and ML conditions Trinity House seeks (which we have), they are content.⁶¹⁴ You will recall Mr McNamara confirmed that the areas listed in the statement of common ground as “ongoing” reflect issues that are dealt with under the ML, and that Trinity House wanted to use the forum of the statement of common ground to record that for further reference. There is no suggestion those are a barrier to the Order.⁶¹⁵

307. You will also note there are no objections from the Chamber of Shipping, Irish Ferries, Stena Line or the RNLI.

NRAs generally

308. It helps to start by considering what an NRA is and how it occurs. Cdr. Brown ran you through this, briefly, in his oral evidence.⁶¹⁶ In short, although tidal energy is in its early stages of development the marine approval process for Offshore Renewable Energy Installations (“OREI”) is already quite mature. The MCA, as the UK authority for the safety of navigation has issued MGN 543,⁶¹⁷ which sets out the stages and steps that a developer must pass through in order to meet the standards required for approval. This has been designed expressly with the relevant legislative obligations in mind – see paras. 2.1-2.5. The MGN requires a navigational risk assessment using the International Maritime Organisation (“IMO”) approved Formal Safety Assessment (“FSA”) methodology. This FSA was in fact developed by the MCA, and later adopted by the IMO.

309. The purpose of an NRA is to capture and describe all navigation hazards associated with a project and to define, quantify and rank the subsequent risks associated. This is all described in detail in Annex A of the NRAA.⁶¹⁸ As Cdr. Brown outlined it allows a common frame of reference for all mariners. The ultimate result is to identify and rank the

⁶¹⁴ Mr McNamara evidence, Navigation RT Day 10 AM Session 1.

⁶¹⁵ Mr McNamara evidence, Navigation RT Day 10 AM Session 2.

⁶¹⁶ Cdr. Brown’s Evidence, Navigation RT, Day 10, AM Session 1.

⁶¹⁷ MDZ/I2.

⁶¹⁸ MDZ/I1.

top risks. Where those risks are not ALARP, the NRA should propose mitigation measures to bring them down to an acceptable level. If the risk cannot be brought to an acceptable level, the NRA must conclude the project cannot proceed. Even where the risks are ALARP, the NRA may still propose mitigation measures.⁶¹⁹ A key part of the NRA is data gathering and stakeholder consultation.⁶²⁰ Each NRA takes 3-4 months.⁶²¹

The Morlais NRA and NRAA

310. As Cdr. Brown outlined, the First NRA⁶²² was undertaken in 2019, conducted by Marico. Marico is the consultancy bought in by Menter Môn to undertake this work. It is very well qualified to do so, as the MD of Marico was originally a key member of the FSA development team at the MCA, and was instrumental in taking the concept through to approval by the IMO in 1996. The output from the 2019 NRA was such that Menter Môn opted to redesign large sections of the MDZ to allow for greater UKCs for Irish Sea Ferries passing through its northern sector, and to widen the eastern inshore passage to allow greater sea room for recreational users. Given the scale of these changes, Menter Môn commissioned the NRAA, which updated and extended the First NRA. Both the First NRA and NRAA involved extensive consultation.⁶²³ Indeed there has been engagement with all stakeholders over more than three years.⁶²⁴

311. In broad outline, the NRAA concluded:

- (i) That the project is assessed to be acceptable in terms of navigational risk, assuming compliance with the embedded and implementation of suggestion mitigation measures,⁶²⁵

⁶¹⁹ Cdr. Brown's evidence, Navigation RT, Day 10, AM Session 1.

⁶²⁰ Annex 1 paras. 2a-e of MGN 543 (MDZ/I2) and Cdr. Brown's evidence, Navigation RT, Day 10, AM Session 2.

⁶²¹ Cdr. Brown's evidence, Navigation RT, Day 10, AM Session 2.

⁶²² That is, an NRA conducted by an organisation with no vested interest in the outcome of the NRA. It does not mean, as the MCA appeared to misunderstand, that the NRAA does not use similar data to the NRA.

⁶²³ See Annex D of the NRA.

⁶²⁴ See Annexes to the NRA and NRAA, and the Statements of Common Ground with Trinity House (MDZ/9) and MCA (MDZ/L8).

⁶²⁵ MDZ/I1, p.102.

- (ii) That of the 85 hazards considered for the construction phase, and 70 of the operational phase, against 7 different types of vessels
 - a. 6 hazards in the construction phase were in the mid-low ALARP range;⁶²⁶
 - b. 3 hazards in the operational phase were in the mid-low ALARP range;⁶²⁷
 - c. All other hazards were low.⁶²⁸
- (iii) The top scoring hazard was a recreational vessel being forced ashore or grounded. This was present with or without the MDZ.⁶²⁹
- (iv) An unpowered recreational vessel being swamped or capsizing was the second highest scoring hazard during the operational phase, only just registering as ALARP and which scoring was unaffected by the addition of the project.⁶³⁰
- (v) In the blue area of the MDZ, where a UKC of at least 8m will be achieved, the navigation of every type of vessel presently using the inshore routeing will still be possible and safe. In the purple area of the MDZ where UKC of at least 20m will be achieved, the navigation of commercial and passenger vessels should be possible and safe. Navigation will be restricted in the Green and Gold areas because of the presence of floating and submerged tidal devices.⁶³¹

Safety of water users, and their controls

312. A question has been raised over the safety of water users. This overlaps with some of the other topics we will pull out below, but we submit that Menter Môn is firmly committed to ensuring the safety of water users. This is evidenced by:

- (i) The process Menter Môn has gone through to get here: the two NRAs, the extensive project redesign, the ongoing consultation;
- (ii) Controls placed into the Order itself. In particular,

⁶²⁶ MDZ/I1, Table 14-2

⁶²⁷ MDZ/I1, Table 14-3

⁶²⁸ MDZ/I1, table 14-1.

⁶²⁹ MDZ/I1, p100 first bullet point.

⁶³⁰ MDZ/I1 Table 14-3.

⁶³¹ MDZ/I1 p. 101.

- a. The requirement that surface piercing devices are least 1km offshore;⁶³²
 - b. The device spacing within arrays;⁶³³
 - c. The need for an NRA before every device deployment.⁶³⁴ We particularly highlight this because Ms Wong of SCC outlined concerns they have about particular devices, but these would be subject to further NRA before deployment.⁶³⁵
- (iii) The comprehensive set of conditions currently contained in the draft ML.⁶³⁶ Again we reiterate those three key points you outlined at the start of the session that these generally control safety but that that largely is a matter for NRW. Furthermore we take this opportunity to note that Menter Môn is committed to East-West channels of at least 500m between arrays, though it is intended this to be secured by the ML rather than the TWAQ.⁶³⁷

313. You heard, Sir, from Mr Salter of the MCA that it is a primary advisor to NRW on the ML side, consulted at each stage of the process. He told you that any controls not in the Order would be in the ML and he was confident that process would take place.⁶³⁸ He also said that the MCA agreed the formal safety assessment process had been adequately followed, and that the MCA had “no concerns” on that side. Instead, he said that primarily what was being discussed today “boiled down to” the “tolerability levels of individual stakeholders”. When you asked him to clarify what he meant, and whether that was the perception of danger, he agreed that it was the “perception of risk”.⁶³⁹ That is an important point, because although different users of the sea may have different views on the risks,⁶⁴⁰

⁶³² The Order (Inquiry Doc - 102) defines the “project parameters” to be the parameters set out in tables 4-21 to 4-30 of Chapter 4 of the ES (MDZ/A25/4). Table 4-22 of Chapter 4 of the ES notes that the worst case scenario for surface emergent devices is detailed in paras. 104 and 117 Chapter 4, plus Chapter 25, the SLVIA (MDZ/A25/24) (25 here is a typo, it should be chapter 24). Chapter 24, SLVIA, para. 147 confirms the 1km separation distance.

⁶³³ See Table 4-9 in MDZ A25.4.

⁶³⁴ See ROD001, Schedule 1 Part 4.

⁶³⁵ Ms Wong evidence Navigation RT day 10 Am Session 2.

⁶³⁶ MDZ/I4 Conditions 19-32.

⁶³⁷ See e.g. MDZ/P7 Cdr Brown Rebuttal Proof of Evidence p. 33 item g; RPE006 Cdr Brown proof of evidence section 1.7, point 8.

⁶³⁸ Mr Salter’s evidence, Navigation RT, Day 10, AM Session 1.

⁶³⁹ Mr Salter’s evidence, Navigation RT, Day 10, AM Session 1.

⁶⁴⁰ As became evident, for example, when Ms Wong ran through concerns about particular devices on Navigation RT Day 10 AM Session 2.

the NRA is the process set up to objectively manage and assess the actual risk, not the perceived risk.

314. It also might be helpful to address here a concern was raised about equipment being torn from its moorings.⁶⁴¹ You have heard from Dr Orme (a mechanical engineer with a PhD in flow modelling of tidal turbines) in broad terms how engineering utilises a safety factor to ensure that the loads each device is calculated to bear far exceed the highest loads they might actually be inspected to bear. This is common in the oil and gas fields. You also heard from Mr Salter that one of the MCA's conditions is compliance with all regulatory expectations written by both the HSE and MCA (to be verified by an independent Third Party),⁶⁴² and Mr McNamara that provisions such as Article 17 of the draft Order⁶⁴³ and Condition 25 of the draft ML conditions impose obligations on Menter Môn in the event of damage, decay or deterioration. None of the main regulators are concerned.

Quality of the survey data

315. If we may turn, then, to the first main area that required clarification, which is whether the survey data was an adequate representation of activity and complied with MGN 543.
316. As we have outlined, MGN543, Annex 1 paras 2a-e contains a set of clear and concise instructions on how they expect surveys to be undertaken. As a starting point, it is agreed with the MCA that the survey data goes "*over and above MGN 543 requirements.*"⁶⁴⁴ You heard from Cdr. Brown how Menter Môn commissioned Anatec – the gold standard when it comes to this type of survey – to provide that survey data. They undertook 28 days of surveys (AIS, RADAR, and Visual) between August and September 2017 and in April 2019.⁶⁴⁵ There was quite some dispute about this at the inquiry but we can confirm that the visual surveys (a) were undertaken and (b) were not merely confirmatory surveys. This has now been agreed by the MCA and RYA.⁶⁴⁶ The 2017 surveys included the Bank Holiday weekend of 26-28 August, a period which to which Menter Môn was directed by

⁶⁴¹ Navigation RT, Day 10, PM session 1.

⁶⁴² MDZ/L8 internal p. 24.

⁶⁴³ Inquiry Doc - 102.

⁶⁴⁴ Statement of Common Ground between Menter Môn and the MCA, p. 14-15

⁶⁴⁵ MDZ/I1 Table 7-1

⁶⁴⁶ See Inquiry Doc - 055 and the RYA's letter to Menter Môn of 13 January 2021, copied to PINS

Mr Davies, Commodore of Trearddur Bay Sailing Club.⁶⁴⁷ In addition, a further six months of AIS data was sourced from between October 2017 and March 2018, and for the NRAA Menter Môn purchased RYA's own UK Atlas of Recreational Boating information. We are aware that some ships do not carry AIS systems, others are difficult to pick up on radar. That is why we used a combination of all three, and specifically outsourced this to a gold standard company. Of course, no survey can guarantee to ever capture everything, not really. That is why there are standardised procedures to get as best an idea as possible, and ensure that everyone can have faith that the process is, at least, representative. That is what we have done, going over and above MGN 543 requirements.

317. The primary complaint made against us is our surveys have not caught everybody. This is put in varying different ways by varying different parties and we will address each, but none can really overcome the point that we have complied with best practice, caught what we can, and indeed gone over and above what we are required to do – as confirmed by the MCA. We simply cover them off for your note. Turning to each in turn:

- (i) Mr Davies, Commodore of Trearddur Bay Sailing club accepts that we have followed the relevant process, but considers we have not caught relevant local usage because the process (i.e. MGN 543) does not capture that. He also suggested the times chosen do not reflect the heaviest periods of usage, and said he would have made himself available for consultation.⁶⁴⁸ In response:
 - a. First, to an extent this is an attack on MGN 543 itself. We understand that small boat users do not think it is adequate. This is a point also made by SCC. That, however, is something more properly addressed to the MCA (and is a point with which they appear to wholly disagree)⁶⁴⁹ – this is not the forum for collateral attacks on regulatory policy. In any event, and even if it was, having undertaken AIS, Radar and Visual Surveys it is difficult to see what more we could have done.
 - b. Second, and linked to that, we turn to the 'weeks chosen' problem. There are two. Mr Davis did respond to our consultations, but did not make the point he raised in the inquiry that sailing activity ceases on the first Saturday of the

⁶⁴⁷ MDZ/I1 p. E-8, pdf p. 213.

⁶⁴⁸ Mr Davis Evidence, Navigation RT Day 10 PM Session 1.

⁶⁴⁹ Evidence of Mr Salter in response to the evidence of Chris Brown (SCC), Navigation RT Day 10 PM Session 2.

August bank holiday, so we would not have caught any activity on the Sunday or Monday and therefore it is not representative. So, again, Menter Môn has acted on the information it was given. To an extent that does not accord with local conditions, that's not on us.

c. Third, to an extent it is suggested there was inadequate consultation we disagree.⁶⁵⁰

(ii) Mr Dennis raised the issue of what kayaking or sailing activity which occurred outside of the MDZ but where the participants would end up in the MDZ if they get into trouble.⁶⁵¹ As this is a primarily kayaking concern we turn to it below, but insofar as this is a *data* question it is submitted it has been considered in the NRAA.⁶⁵²

The RYA also raised a query about the quality of the survey data and whether visual surveys were completed.⁶⁵³ This has now been now resolved.

Quality and adequacy of the NRA and NRAA

318. A further question, linked to the first but conceptually distinct from it, is the extent to which the NRA and NRAA were adequate and complied with MGN 543. Again, we submit these are perfectly adequate. The two full NRAs followed the FSA methodology approved by the IMO, and are considered compliant with MGN 543 by the MCA.⁶⁵⁴ We also note that RYA has made clear in its closing (p. 1) that their objection on this ground has also fallen away. That we say is the end of it.

⁶⁵⁰ Consultation has been dealt with above but Trearddur Bay sailing club was specifically referenced in Appendix E to the NRAA – see MDZ/I1.

⁶⁵¹ Mr Dennis Evidence, Navigation RT Day 10 PM Session 1.

⁶⁵² MDZ/I1 p. 35-36.

⁶⁵³ Mr Hill Evidence, Navigation RT, Day 10 PM Session 1.

⁶⁵⁴ MDZ/N6 page 1. For completeness, Mr Pattullo (Day 10, PM Session 1) referred to a set of minutes in MDZ/N12 p.88 to argue Menter Môn and SCC had agreed that MGN543 did not adequately assess the needs of kayakers. The minutes are in fact slightly ambiguous, but suffice to note for these purposes that this meeting post-dated the NRA but pre-dated the NRAA, Morlais recognised that kayaking would need to be addressed in detail, which it then did in the NRAA. So, threats to kayakers have been considered.

319. A concern was raised by Mr Pattullo for SCC about the extent to which kayakers were involved in the Hazard Review workshops.⁶⁵⁵ As Cdr Brown explained however, when dealing with a sizeable NRA (as one would do here) which would detail 130 hazards, all of which would need to be discussed with stakeholders and ranked – it would become an unwieldy process. The way that it is done for NRAs of such scale is through consultation – which is why the kayaking and sailing responses were included as an Annex to the NRAA.⁶⁵⁶ This is accepted practice. All will, of course, be able to weigh in for the more confined and focused device specific NRAs.

320. The RYA further expressed a concern regarding whether the NRAA adequately considered non-powered craft other than paddleboards and kayaks. As Cdr Brown outlined Table 11-2 of the NRAA details un-powered recreational vessels, which includes but is not limited to sailing dinghies, kayaks and canoes. This, as Cdr Brown explained, would have taken into account craft such as the 16ft-24ft craft out of Trearddur Bay with which the RYA was concerned.⁶⁵⁷

321. Other than those specific points, the concerns expressed under this topic did not really focus on our NRA and NRAA, but on whether MGN 543 adequately represents or captures unpowered craft such as kayakers. In particular you heard from Mr Bolton for SCC, who sought to re-write the MGN 543 risk assessment.⁶⁵⁸ It was, therefore, a collateral attack on the guidance itself. As we have pointed out above, this simply is not the place for that. Moreover, Mr Bolton sought to pray in aid certain HSE guidance which, as Mr Salter outlined, not of itself applicable to this type of assessment.⁶⁵⁹

Loss of Amenity

322. Put shortly, (and being careful not to conflate this with sea room), the loss of amenity refers to the fact that by putting something in the water where people recreate, they can

⁶⁵⁵ Evidence of Mr Pattullo Navigation RT, Day 10 PM session 2. Mr Hill for the RYA made the same point - Evidence of Mr Hill, Navigation RT, Day 10 PM session 1, however as noted the MGN 543 compliance objection for the RYA has fallen away.

⁶⁵⁶ Evidence of Cdr Brown, Navigation RT Day 10, PM Session 2 and see the NRAA MDZ/I1 Annex A.

⁶⁵⁷ Discussion between Cdr Brown and Mr Hill, Navigation RT Day 10, PM Session 2, and see MDZ/I1 Table 11-2.

⁶⁵⁸ Navigation RT, Day 10, PM session 2.

⁶⁵⁹ Evidence of NS in response to the evidence of Chris Brown (SCC), Navigation RT Day 10 PM Session 2.

no longer do that. Mr Hill referred to two types of recreational water user- those passing through and those who are more local. We refer you to Inquiry Doc - 043 which gives a fairly helpful indication (albeit only indicative) of just how little water would actually be taken up by the devices, and how much is left. The starting point is that this is not a big imposition, even at full deployment – a point recognised by Mr Salter of the MCA.⁶⁶⁰

323. Regarding what would be lost (and we accept some would be) Cdr. Brown has identified that the area is notoriously prone to overfalls, is exposed, and is an area where the wind and sea can become, in his words, “truly ferocious”. We would refer you, Sir, to passages in his proof of evidence⁶⁶¹ and rebuttal proof of evidence⁶⁶² where he refers to the fearsome nature of this stretch of water, and quotations from various sailing directions. The overall point of this is that this is not a calm stretch of water regularly used for leisurely cruises. It is difficult and turbulent. So, the amenity value it carries is reduced. This falls against the backdrop of a policy imperative in the WNMP for existing users to share the use of the sea – see above.

324. In short, therefore, any argued loss of amenity arising from the limited stretches of water no longer being available to sail should be given very limited weight in the planning balance.

Searoom

325. As a starting point it would help to refer to Inquiry Doc - 043 as a pictorial (and only indicative) indication of precisely how much room there is here. It is easy to lose sight of this when overlaying the various zones, but Inquiry Doc - 043 is a good indication. Also again as a preliminary point, it should be noted that this assumes the full 240MW deployment. Again, of course, the phased deployment means we start much lower, and so other recreational users will have commensurately more room over a large portion of the project’s lifetime.

326. Sir, you heard from Cdr. Brown that deciding how much searoom is “enough” is a complex question, likely to elicit four different answers from four different mariners. For

⁶⁶⁰ Day 11 AM Session 1.

⁶⁶¹ MDZ/P7, p11.

⁶⁶² RPE006, p10.

each person, it will be a function of a large number variables, included weather, tide, time of day, visibility, type of vessel, height of eye, the navigation equipment fitted, and other traffic. This helps explain why the various requests for searoom tend to vary according to the objector: Mr Carruthers of the RYA told the applicant that 4 cables (732 metres) was acceptable,⁶⁶³ as did the Coxswain of the Holyhead lifeboat.⁶⁶⁴ The RYA's Statement of Case maintain that searoom of should be 4 cables (732m) from the overfalls (and state that is what Mr Carruthers meant – though it's not in the minutes).⁶⁶⁵ Michael Davis originally asked for the eastern inshore boundary to be moved 1,000m offshore, and has since increased that to 1,500m.⁶⁶⁶ However, cutting through these various different objective views – the IMO and MCA in MGN 543 endorse the NRA process to assess, quantify, and answer this sort of complicated question. That is the process Menter Môn has undertaken.

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327. It is Menter Môn's position – based on its thorough assessments and detailed evidence - that the current eastern inshore boundary, which is on average 1.9km and has a minimum distance of 1,000m offshore is sufficient searoom. That is what is provided for in this project, and the NRAA has assessed this and concluded that the risks presented in the eastern inshore passage are ALARP.⁶⁶⁷ This assessment includes, considering whether users can go through, around, or over a development – and again we'd ask you to consider that by looking at Inquiry Doc - 043. ⁶⁶⁸ The MCA, largely, agrees that the risks are acceptable – it notes that the eastern inshore boundary is large enough for motorised vessels and 90% of the transits recorded through this channel.⁶⁶⁹ And Sir we remind you that the traffic survey data shows the majority of craft presently pass between what will be the eastern boundary of the MDZ, and the coastline.⁶⁷⁰

⁶⁶³ MDZ/I1 E-17.

⁶⁶⁴ MDZ/I1 E-12.

⁶⁶⁵ Mr Hill, Navigation RT, Day 11 and MDZ/N2 6.3.4.

⁶⁶⁶ See Michael Davis letter to PINS dated 16 October 2019 Michael Davis email to Morlais CC'd Philip Thompson of PINS, 22 January 2021 at 17.29, both of which were discussed by Cdr Brown in the Navigation RT, Day 11 AM session 1.

⁶⁶⁷ See MDZ/I1, Section 12, and the Hazard Log for the Construction Phase (Annex B) and Operational Phases (Annex C).

⁶⁶⁸ While dealing with MGN 543 we should also deal with a minor point raised by the RYA on Day 11, AM session 2: they argued that MGN 543 requires Menter Môn to take the views of the local community into account. We do not dispute that, but as was pointed out during that RT there is a difference between taking views into account, and agreeing with them. Menter Môn has done the former, it is not compelled to do the latter. The MCA, you will recall, is satisfied that the NRAA is MGN 543 compliant.

⁶⁶⁹ MDZ/N19, p.1.

⁶⁷⁰ Cdr Brown Evidence Navigation RT, Day 11 AM Session 1.

328. The crux of the dispute really relates to boats under sail – and specifically those boats which do *not* have an engine, given that as Cdr Brown noted a sailing vessel becomes a power driven vessel as soon as it starts its motor.⁶⁷¹ You will recall that, after much discussion, we were able to make some common ground with the RYA in that, basically, this simply comes down to a difference of opinion. We submit it is Cdr. Brown’s opinion that you should prefer. His view essentially boils down to the following:

- (i) Navigating around well marked and visible static hazards is part of sailing – as the RYA note in its position paper on tidal energy.⁶⁷²
- (ii) 1km searoom is clearly adequate in the Hurst Castle/Needles channel. This comparison was contentious: Mr Hill for the RYA considered the area was an entirely different wave and wind situation due to the sheltering effect of the Isle of Wight, arguing that there isn’t an intense lee shore and that the coast is lower making rescues more possible.⁶⁷³ Mr Salter did not quite go that far, but did say the Needles do not have the same tidal conditions in terms of overfalls races and eddies.⁶⁷⁴ In response, you heard from Cdr. Brown that the sea is variable and unpredictable and that each mariner will have different experiences. The Needles does contain areas of wind and tide overfalls, and though perhaps not as frequent as those in the area of this site, in his expert view as a mariner they can be as challenging as West Anglesey. Moreover, he continued, the Solent is 3-5 times busier. It is not, he freely admitted, an exact parallel, but nowhere in the world is because land (and sea) are unique. There are, however, valid and useful parallels to be drawn.⁶⁷⁵
- (iii) The conditions under which Cdr. Brown considered prudent seamen would normally observe before sailing this stretch of water – which as Vice-Commodore

⁶⁷¹ Cdr Brown Evidence Navigation RT, Day 11 AM Session 1 citing Rules 3b and 3c of the International Regulations for the Prevention of Collisions at Sea. You will recall he expected that most vessels passing through the area would have at least an auxiliary motor ready, as endorsed by the Yachting Monthly extract in his Rebuttal Proof of Evidence (RPE006).

⁶⁷² MDZ/N2.

⁶⁷³ Mr Hill Navigation RT AM Session 1.

⁶⁷⁴ Evidence of NS Navigation RT AM Session 1.

⁶⁷⁵ Cdr. Brown’s evidence, Navigation RT AM session 2.

Davis told you, is “particularly tricky”.⁶⁷⁶ As a minimum, Cdr. Brown expected an up to date forecast covering the time of passage, suitable wind strength for the size of vessel, suitable wind direction with the knowledge of the perils of a lee shore, good understanding of the likelihood of local and diurnal effects, good visibility, timing the passage with the tide in his favour, planning to do the passage in daylight (or with aids to navigation such as chartplotter, radar or AIS if undertaking it at night).⁶⁷⁷

- (iv) It appears that most boats which are solely sail powered to follow this guidance. You heard from Vice-Commodore Davis that he considered Cdr. Brown to be making “very good points”. When Trearddur Bay yacht club sails its fleet of sail powered heritage craft, it does follow the guidance one would expect (albeit perhaps with some changes which are not quite orthodox, but with good reason). The Vice-Commodore explained that, if the sailors were setting out of Trearddur Bay and conditions changed, they would ordinarily turn back. The difficulty arises if they were seeking to return from Holyhead (where they were usually committed to the route), but you also heard that if the Yacht Club takes its fleet to Holyhead, it takes the additional precaution of usually being accompanied by motorised safety boats.⁶⁷⁸
- (v) As was pointed out during day 11 of the inquiry – there are other options. If we observe for a moment the split the RYA draws between those sailors cruising from one area to another, and the smaller recreational sailors:⁶⁷⁹ for the recreational sailors if conditions for entering the MDZ area are not optimal, they can of course recreate elsewhere. Again you heard from Vice-Commodore Davis that it was more unusual for the Trearddur Bay yachters to sail north, rather than south – and that if conditions changed they would turn back.⁶⁸⁰ For passage cruisers, and those larger vessels, they have the option of going around the MDZ. This is not something that smaller 20 foot vessels might attempt, but the larger ones (for

⁶⁷⁶ Evidence of Vice-Commodore Davis, Navigation RT day 11, AM session 1.

⁶⁷⁷ Cdr. Brown’s evidence, Navigation RT, Day 11 AM Session 1.

⁶⁷⁸ Vice Commodore Davis evidence Navigation RT, Day 11, AM Session 1.

⁶⁷⁹ Which, contrary to the suggestion of Mr Hill, was observed in the NRAA – see the evidence of Cdr. Brown on Navigation RT, Day 11, AM Session 1.

⁶⁸⁰ Vice Commodore Davis evidence, Navigation RT, Day 11, AM Session 1.

example, the 36 footer outlined by Vice-Commodore Davis) very well could.⁶⁸¹ We accept that might cause some displacement – which we come back to below – but in terms of searoom, that is an answer for the larger boats.

- (vi) As Vice-Commodore Davis outlined, the widening of the inshore passage to 1,000m was welcomed and “really helpful to” them. There remains a concern about the “1 in a million” incident, but we are talking here about a 1 in a million incident for 10% of the sea traffic for which the MCA suggested further consideration was needed. That is a small risk.⁶⁸²
- (vii) Although the assessment was considered intolerable from the point of view of an interactive boundary assessment – as Cdr Brown explained this was somewhat inevitable, given that the IBA is designed for commercial shipping routes and offshore windfarms. The IBA itself acknowledges this in stating that the process is “not a prescriptive tool but needs intelligent application and that advice will be provided on a case-by-case basis.” You will recall that the applicant asked for this advice from the MCA and they responded by saying that the Eastern Inshore Channel was “large enough for motorised vessels and for 90% of the transits that are recorded through this channel.”⁶⁸³
- (viii) Of course, as Mr Salter for the MCA pointed out, there is the additional check of the ML process.⁶⁸⁴

329. So, for all those reasons we submit that there is an acceptable level of searoom in the eastern inshore channel.

Displacement

330. There is little to say on displacement. It was considered in the NRA and NRAA, but the MCA sought further information.⁶⁸⁵ A clarification note was produced and annexed to Cdr Brown’s Rebuttal proof of evidence, and Mr Salter confirmed for you at the start of the first navigation RT session that the issue was resolved. As Cdr Brown outlined, it is

⁶⁸¹ Vice Commodore Davis evidence, Navigation RT Day 11, AM session 1.

⁶⁸² Vice Commodore Davis evidence, Navigation RT Day 11, AM session 1.

⁶⁸³ MDZ/N19 MCA Response to Statement of Case, p.1

⁶⁸⁴ Navigation RT day 11 AM session 1.

⁶⁸⁵ MDZ/N19.

expected that the maximum displacement for vessels diverting around the MDZ is likely to be c. an additional 2.5 nautical miles – or an extra 30 minutes at 5 knots.⁶⁸⁶ No party particularly took issue with this. We submit, that this is not a significant amount of displacement, and perfectly acceptable in the context of the benefits this project could bring.

Kayakers run out

331. Sir, you will recall a great deal of time was spent at the second navigation RT on this topic. However, Menter Môn's case can be relatively shortly stated. The NRAA assesses the risk to kayakers in the MDZ as low,⁶⁸⁷ and it is not expected that it will represent an additional danger to life beyond what already exists. We have already covered the pedigree and support for the NRAA above, and won't repeat it again. So it is against that background we must engage with the points raised by SCC, and those broadly fell into two categories: first, whether kayakers would be swept into the MDZ, and second what would happen when they got there. Obviously to an extent these are interrelated (the extent to which kayakers are accompanied may be relevant to both, for example) so splitting them is somewhat artificial.

332. If we may start with whether kayakers would be swept into the MDZ – it is not and never has been Menter Môn's case that this cannot happen. We accept it is possible, we submit however that this possibility is remote. Start with where they travel – most (though admittedly not all) kayaking or canoeing activity takes place relatively close to the shore – within 500-700m of the coastline. Surface piercing devices, by contrast will lie at least 1000m offshore.⁶⁸⁸

333. Even assuming a kayaker is in distress, we still do not accept it is likely they would be swept into the MDZ. The NRAA has been informed by the studies undertaken by HR Wallingford. SCC took issue with that analysis, presenting their own view based on new evidence at the inquiry, and asserting the HR Wallingford model was not detailed or precise enough.⁶⁸⁹ But, HR Wallingford have been, as Cdr. Brown told you, world leaders

⁶⁸⁶ RPE0006, p. 23ff.

⁶⁸⁷ MDZ/I1, p. B-2 Hazard ID No. 6

⁶⁸⁸ Cdr. Brown's evidence, Navigation RT Day 12 AM Session 2.

⁶⁸⁹ Evidence of Ms Wong and Mr Bolton, Navigation RT Day 11, AM Session 2.

in hydrodynamic modelling for nearly 20 years.⁶⁹⁰ SCC have not. We also refer you to our FEI response on these points.⁶⁹¹ HR Wallingford's view and work is, with respect, to be preferred. So that sets the scene for how far a distressed kayaker may travel, left to their own devices. However Sir you also heard from Cdr. Brown that this area is classified by the British Canoe Club as "advanced water", which requires experience and skill to master. It is fair to assume that users of this water will be capable of self-rescue. Moreover, it is not expected canoeists would be in this area alone, so there is a reasonable expectation of mutual support or the activation of external resources.⁶⁹²

334. What about when Kayakers are within the MDZ? Well as Cdr. Brown told you surface piercing devices will typically be up to 200m apart and longitudinally⁶⁹³ spaced up to 500m – at full deployment (of course, in the initial phase of the project there will potentially be only a small number of devices). As you heard from Cdr Brown, sensible hydrodynamics demands that any surface emergent part of a device will be as small as possible, and streamlined, around which a comparatively light floating object such as a kayak or person is likely to be swept. So, kayakers within the MDZ may well not even have a close encounter with a device. Ms Wong for the SCC raised concerns about the water bubbling or the turbines having a reef effect effects.⁶⁹⁴ This was a new point, unsubstantiated by any evidence and to which no weight can be attached.

335. Even if they do, we submit the presence of the MDZ is a low risk to a kayaker. There are videos, one of which you were referred to, of kayakers playing in and around these turbines in Strangford Lough.⁶⁹⁵ Moreover, Mr Dennis, in a response to Menter Môn's 2013 consultation, suggested if turbines stood above the water Kayakers would use the eddy lines and pillars as a white water training area.⁶⁹⁶ In the MDZ, any moving part of a device is likely to be meters below the surface, and kayakers should be wearing specialist kayaking lifejackets or buoyancy aids, the risk of contact with a moving part is therefore

⁶⁹⁰ Cdr. Brown's evidence, Navigation RT Day 11, AM session 1.

⁶⁹¹ Inquiry Doc – 052.

⁶⁹² Cdr. Brown's evidence, Navigation RT Day 12 AM session 1.

⁶⁹³ Or "laterally" for those of us not as well versed in navigation.

⁶⁹⁴ Navigation RT Day 12 AM Session 1.

⁶⁹⁵ Referred to and shown as part of Cdr. Brown's evidence, Navigation RT Day 12 AM session 1.

⁶⁹⁶ Inquiry Doc – 013, Appendix 4.8.

extremely small.⁶⁹⁷ It is accepted that for SCC Ms Wong pointed out what are perceived to be snagging hazards on certain models of turbines. However, as has been laboured at length in this inquiry we are at a stage where we do not know what devices are actually going into the water. As Cdr Brown highlighted, safety value is going to have to be incorporated into the device design process. It is Menter Môn's hope that devices can be designed to be a refuge for kayakers, but we do not say too much more about that. It is therefore simply too early – and not justifiable – to pick out certain devices, say “we will get injured if we touch these” and therefore try to impose restrictions on the project. That is, at present, an unknown.

336. However, this all comes against a background whereby the NRA for the Site will have to be updated every two years (incorporating stakeholder engagement), and each new array will be subject to its own NRA (also with stakeholder engagement). Wrapped up altogether, we remind you that SCC themselves have said no-one expects the area to be unusable by kayakers.⁶⁹⁸

337. Sir you will recall that toward the end of the second navigation RT, SCC, through Ms Wong and Mr Bolton, provided an extensive presentation of where SCC see the risks lying and why they disagree with the NRAA assessment, do not agree that the MDZ does not add to risks, and why the perception of increased risk is not unreasonable. Leaving aside the fact that this was all introduced very late in the day – there was 35 slide presentation which did, we're afraid, include new evidence – we actually think this can be resolved fairly shortly, for two reasons:

- (i) First, we have considered all of this in the NRAA.⁶⁹⁹ The fact we have reached a different conclusion to the SCC does not mean they were not listened to.
- (ii) Second this was, primarily, about safety. That is considered in the ML process and will be re-examined for any device specific NRAs. All of the regulators are competent – if a particular device really does pose a risk to Kayakers (which we don't accept), it can be managed at that stage. SCC can make representations.

⁶⁹⁷ We have, of course, taken on board their concerns they raise about the use of 15m tow lines. However, as Ms Wong noted, one can use tow-lines that float. This is a reasonable accommodation for kayakers to make.

⁶⁹⁸ EIC012, p. 4.

⁶⁹⁹ MDZ/I1 p. B-2 Hazard ID No 6.

Neither NRW nor the MCA is not going to let us put something in the water that creates an unacceptable risk. For SCC to be running this argument, or the argument that any perception of increased risk is justified, they have to consider that the regulator will not regulate competently. As you will recall from the discussion at the very end of this session – that is something SCC might not perhaps have fully appreciated as they missed the Regulatory RT. There is no basis for considering that the relevant regulator will not safeguard their safety. All of these concerns are a matter for NRW. For present purposes, we revert to the point you made at the very start of the first day of navigation RT: marine safety is also regulated by the ML, there is no reason to doubt a licence would be issued,⁷⁰⁰ and there is no reason to doubt the competence of the regulator in this case.

Construction impact and timelines

338. Sir another particular issue that was raised were the impacts of construction on local businesses and usages, and (linked to that) the impact of the availability of Abraham's bosom.

339. Beginning with the construction timeline, you heard from Cdr Brown the rough timeline of what would occur: Menter Môn will identify the construction requirements, details of proposed activity during the DDP, in accordance with conditions 1-2 of the draft ML conditions. As part of this it will have to identify the likely length of work and submit a construction environmental management plan (condition 4 of the draft ML conditions).⁷⁰¹ You have the worst case estimates in the ES.⁷⁰² Menter Môn will then have to consider an array specific NRA, as per condition 27 of the draft ML. This is going to require consultation with both regulators and stakeholders – as we have already discussed. Cdr. Brown informed you that this would normally be expected to identify the optimum time for works in order to minimise disruption, alongside other mitigations and measures, and any other constraints.

⁷⁰⁰ Mr Pattullo for SCC expressed doubts over whether NRW might issue a ML because of the concerns expressed by SCC. However, he stated when you asked that NRW had given no reason to SCC to think that.

⁷⁰¹ MDZ/I4.

⁷⁰² MDZ/A25.4 Table 4-17.

340. Provided the NRA concludes the project is ALARP or less, Menter Môn will then apply for the marine safety zones to the Welsh Ministers.⁷⁰³ This process has information publication requirements, and objection procedures and periods, all laid out in regulations.⁷⁰⁴ That safety zone approval process is also likely, in Cdr Brown's experience, to require a construction management plan and emergency response plan, guard vessels, area monitoring by AIS/VHF/CCTV, public notification periods at least a month in advance (and notices to mariners 2 weeks in advance), time windows for work to commence and quite possibly weather or seasonal limitations. Those safety zones are unlikely to extend beyond 100-150m.⁷⁰⁵ Menter Môn has spoken to operators of devices in Orkney who advised their zones never exceeded 200m (those that required them, which not all did) – the ones around anchored warships was 50m, and the nuclear deterrent is 200m.⁷⁰⁶ So both during the array specific NRA process and the safety zone process, there will be plenty of notice to local businesses and kayakers. Ms Wong very fairly said that SCC were much reassured by that.⁷⁰⁷

341. A particular subset of the concerns raised was the level of disruption at Abraham's bosom, which SCC repeatedly stated is important for their lunch breaks, and which we all acknowledge is key for kayakers' access to emergency services.⁷⁰⁸ This only arises if HDD cannot be used – which we have already dealt with. We will deal with this in two stages. The first and most important aspect is the access to emergency services. As Cdr Brown informed you, safety of life overrides every engineering and project concern at sea. So, if

⁷⁰³ As Mr Maile outlined in Navigation RT, Day 11 AM Session 2, Art. 43 of the Draft Order (ROD0001) provides that the Welsh Ministers may issue safety zone notices. This reflects the position under legislation. S. 41 Wales Act 2017 amended ss. 95-96 Energy Act 2004 such that Welsh Ministers have the functions of declaring safety zones. The Electricity (Offshore Generating Stations) (Safety Zones) (Application Procedure and Control of Access) (Amendment) (Wales) Regulations 2019 (S.I. 0219/293, 2019 W.71) have amended Reg. 5 Electricity (Offshore Generation) (Safety Zone) (application Procedures and Control of Access) Regulations 2007 (S.I. 2007/1948) (the "**Safety Zone Regs**") to provide that applications are to be made to the Welsh Ministers.

⁷⁰⁴ As Mr Maile outlined, Regs. 3-8 of the Safety Zone Regs, applied by Art. 43(3) of the Draft Order (Inquiry Doc - 102).

⁷⁰⁵ Some concern was expressed by Ms Wong and SCC about what happens if they enter the safety zone. As Mr Salter for the MCA pointed out in Navigation RT Day 11 AM session 2, the prohibitions on entering a safety zone do not apply if the vessel is saving life or property or is in there due to foul weather or distress – see Reg. 9(g),(h) Safety Zone Regs.

⁷⁰⁶ Cdr Brown evidence, Navigation RT, Day 11 AM session 2.

⁷⁰⁷ Evidence of Jenny Wong, Navigation RT, Day 11 AM session 2.

⁷⁰⁸ You will also note this was referred to in para. 6 of Inquiry Doc – 078. For the acknowledgement, see e.g. evidence of Cdr Brown, Navigation RT, Day 11 AM session 2.

emergency access is required at Abraham's Bosom, all other work will cease and every effort will be made to facilitate this. Indeed, he noted that in his experience the presence of construction personnel and safety boats may improve the safety measures in that area. So, for emergencies, the disruption will be minimal – if any.⁷⁰⁹ For other elements of disruption – e.g. lunch breaks – Menter Môn acknowledges there will be some disruption. We have already outlined that nine export cables will need to be laid. As a worst case, the ES⁷¹⁰ predicts a total of 32 days per year spent on export cable installation. Approximately 20% of this will occur in Abraham's Bosom so that is, roughly, seven days installation time per year. The Cable Tails add another two days per year – so nine days per year in total of potential restricted access to Abraham's Bosom.⁷¹¹ These will be limited to certain weather and tidal windows, and as depend on vessels which need to be chartered 3, 6 or even 9 months in advanced.⁷¹² So, combining that with the consultation requirements we have already set out above, it is submitted this is not a significant disruption to kayakers in the area, and is one that is eminently manageable such that the uses of the sea can coexist.

342. SCC also raised concerns about the wider disruption from construction, particularly when vessels will be laying cables around south stack or Hubs are being installed in the Blue Area.⁷¹³ She asked that SCC be able to negotiate when those vessels are there, and whether compensation is due for any disruption faced to kayaking businesses. On the former question our answer is the same as for Abraham's Bosom - there are consultation and notification requirements built into both the device specific NRA process and the safety zone process. On the latter – there is no right to compensation and that is not the purpose of this process, save of course in respect of those whose land we are acquiring – but as you will appreciate kayakers do not “own” the sea any more than sailors do. It is a public resource. “Co-existence” does not require compensation. In any case, of course, there are the socio-economic mitigations to be put in place.

Conclusion

⁷⁰⁹ Cdr Brown, Navigation RT, Day 11 AM session 2.

⁷¹⁰ MDZ/A25.4 para. 231ff and Table 4-17, and Cdr Brown, Navigation RT, Day 11 AM session 2.

⁷¹¹ We should flag at this point a slight mistake in Table 4-17 of the ES MDZ/A25.4. It erroneously states that Cable Tails installation will take 20 days per year (200 in total). It is in fact 20 days in total, so, 2 per year on average. The wording in para. 233 is correct, as what Cdr. Brown outlined in evidence.

⁷¹² Evidence of Cdr Brown, Navigation RT, Day 11 AM session 2.

⁷¹³ Evidence of Ms Wong Navigation RT, Day 11 AM session 2.

343. Sir this has been a long section in a long argument, but we submit to you that for all of the reasons explored and outlined above, non-navigation matters is not a basis to refuse this Order. We have outlined the reasons for this in the summary at the start.

6. Compulsory Acquisition

Introduction

344. We do not anticipate there being a great deal of dispute on the general principles to be applied to your consideration of CPO matters. Where to look for the relevant guidance can be a little bit circular,⁷¹⁴ but we don't anticipate any particular controversy over the following principles:

- (i) Fundamentally, CPOs are granted to facilitate development which is in the public interest. It is intended to be a last resort, where acquisition by agreement has failed.
- (ii) The Welsh Ministers will have to consider:
 - a. Whether attempts have been made to acquire the land by agreement,
 - b. Whether taking the land is necessary to progress a development scheme,
 - c. Whether there is a compelling case in the public interest, and
 - d. There is clear evidence the public benefit in the development scheme will outweigh the private loss.
- (iii) Menter Môn must show the scheme is likely to proceed, including whether there is sufficient funding in place. This is a matter dealt with by Mr Billcliff in his

⁷¹⁴ The Welsh Government Circular 003/2019 *Compulsory Purchase in Wales and 'The Criche Down Rules (Wales Version, 2020)* (October 2020) contains detailed guidance on the application of CPO procedures in Wales. However, at para. 24 it states that CPO under the TWA 1992 has its own guidance. Welsh PINS documents *Applications for Orders under the Transport & Works Act 1992* (Sept 2019) does not say a great deal on compulsory purchase, but notes that the DfT's *A Guide to TWA Procedures* (2006) remains relevant and provides more detailed guidance, though should be read bearing in mind more recent legislative changes. *A Guide to TWA procedures* at para. 1.39 states that relevant advice on the use of CPO powers can be found in Circular 06/2004 *Compulsory Purchase and the Criche Down Rules*. In England, that has been superseded by MHCLG *Guidance on Compulsory Purchase process and the Criche Down Rules* (2018). That, of course, does not take account of Welsh legislative changes, which are reflected only in Circular 003/2019. Overall therefore we submit that you can, and should, have regard to Circular 003/2019 notwithstanding the statement at para. 24.

proof⁷¹⁵ and his oral evidence and on which he was not challenged or cross-examined by anyone.

- (iv) The Welsh Ministers recommend that non-public bodies seeking to use and justify CPO powers in Wales do so in accordance with the overarching well-being goals contained in the 2015 Act. Consideration should be given to how the use of CPO powers contribute the well-being goals. Moreover, any acquisition must be a justified infringement with the landowners rights under A1P1. There will be no breach where the acquisition is authorised by law, proportionate, is in the public interest and any landowner will be appropriately compensated. Acquiring authorities should therefore explain why it considers that the purposes for which the land is to be acquired is of sufficient import to justify the taking, the land is needed for the delivery of those purposes, a less intrusive measure could not have been used, and a fair balance has been struck between the rights of the individuals and the interests of the community.
- (v) This, of course, all occurs against the background of the general legal principle that any taking should be compensated for in a manner which will put the landowner into the position they would have been in it had not occurred (the principle of equivalence). That is more a matter for compensation but should be borne in mind.

345. Sir, against those general principles, we come to the CPO sought in this case. We will deal with Orthios in detail below, but would seek to make the following three preliminary points:

- (i) First, as we outlined at the start, this entire operation has been set up to minimise the land take required from both private landowners and statutory undertakers. As Mr Billcliff recounted for you both in his proof of evidence and when giving evidence in chief⁷¹⁶ in particular, this has been achieved by burying the cable along the existing road route as far as is reasonably practicable, and utilising a route with the lowest number of private landowners using brownfield sites and public or large company owned land where possible, so that there would be fewer owners

⁷¹⁵ See MDZ/P8 Mr Billcliff Proof of Evidence Section 9.

⁷¹⁶ Mr Billcliff's Proof of Evidence para 5.2.14, sections 6 and 10.5 and his evidence in chief.

with greater land interests and those would be used to handling property deals. Moreover, Menter Môn has taken what steps it can to respond proactively to objections made by landowners. For example, it has realigned cable routes to avoid commercial construction activities, procured the cable in long lengths to reduce the need for joint bays, is undertaking activities at depths and entering asset protection agreements to avoid asset damage, is using temporary powers rather than permanent takings where possible, and has developed a construction programme that will minimise disruption to local businesses.⁷¹⁷ Furthermore, Sir, you heard from Mr Billcliff that the intention at this point is to provide a futureproofed project – laying, for example, larger cables now so that when the project scales up, those can be utilised without further disruption to local residents and businesses.⁷¹⁸ In short it is doing and has done everything it possibly can to minimise the land take and disruption on others.

- (ii) Second, the required procedures and guidance have all been followed – Menter Môn created its book of reference and has engaged with all those within the book.⁷¹⁹ In light of point that and point (i) above, agreement has been reached with almost all of those affected. You have at Inquiry Doc – 109 a table outlining the current progress of matters with all parties owning land across the route. However Sir, for yours and the Welsh Ministers reference, even where agreement has been reached we are keeping the land in the CPO to cleanse the title of encumbrances and protect Menter Môn in the event of any breach of any agreement or in case any new interests come to light.
- (iii) Third, the scheme meets the tests we have outlined above. There is a clearly compelling case in the public interest where:
 - a. The benefits are manifold and largely unchallenged, as we have outlined above.⁷²⁰ Against that, by working with local landowners and minimising those areas where we do impinge on land the private loss really is minimal.

⁷¹⁷ Mr Billcliff's Proof of Evidence Section 7.

⁷¹⁸ Mr Billcliff's evidence in chief.

⁷¹⁹ Mr Billcliff's Proof of Evidence para 10.3.9.

⁷²⁰ See, too, Section 10.2 of Mr Billcliff's Proof of Evidence.

- b. Taking the land we seek is necessary to progressing this scheme and delivering those benefits. We are now at the irreducible minimum of land take, beyond which any further reductions would imperil the scheme. We reiterate that you heard from Mr Billcliff how the land take has been designed to “future proof” the project – so notwithstanding the reduced deployment scale to start with, the infrastructure is available allowing it to scale up as required.
- c. The scheme is likely to proceed within a reasonable timescale. You heard from Mr Billcliff that grant funding has been secured, and unchallenged evidence of the proposed sources for the remainder of the funds. So, all resources are likely to be available to achieve what is proposed within a reasonable timescale.⁷²¹
- d. As Mr Bell has outlined, progressing the scheme is in accordance with the 2015 Act.

346. You will of course also note that the special category land application certificate has now been issued by the Welsh Ministers.⁷²² This authorises the acquisition of new rights over the area of assumed public open space at Abraham’s Bosom.

Conygar/Horizon

347. It is worth mentioning a brief point on the Conygar/Horizon land (plot 39). Conygar owns the land, Horizon have an option. Horizon have an objection outstanding, but submitted a letter noting that positive progress was being made to find a workable solution that meets the needs of both projects. The draft Wylfa DCO has now of course been withdrawn.⁷²³ Conygar, by contrast, did not originally object to the scheme, only submitting a brief letter of objection on 12 January 2021.⁷²⁴ You have our response to that,⁷²⁵ and for brevity we do not repeat it here. Put shortly, this was a grossly late objection, it has not been accompanied by any evidence, and seems to conflict with Horizon’s letter which states it expects a workable solution to be reached. We urge you to give it no weight.

⁷²¹ Mr MDZ/P9 Billcliff’s Proof of Evidence Section 10.7 and evidence in chief.

⁷²² Inquiry Docs – 077 and 078.

⁷²³ Inquiry Doc - 058

⁷²⁴ Inquiry Doc – 060

⁷²⁵ Inquiry Doc – 061

(i) Introduction

348. While Orthios pay lip-service to not objecting to the principle of the Morlais project and to supporting it “*in general*”⁷²⁶ the reality is regrettably somewhat different with Mr LeVasseur in his 2nd proof seeking to suggest, contrary to the wholly unchallenged evidence of Mr Bell and Dr Jones, that the Morlais project is “*nothing more than an energy transmission conduit*” which would generate “*a small number of direct jobs (less than 10?)*”⁷²⁷ jobs⁷²⁸. In cross-examination Mr LeVasseur accepted, as he had to, that he could not in fact challenge the evidence of Mr Bell based on the ES that the Morlais project would generate up to 456 jobs in total, 240 of them direct. Mr LeVasseur’s evidence is though indicative of the way Menter Môn has been treated in negotiations going back 4 years now, that is to say with a mix of arrogance and derision. The Morlais project is seen by Orthios as little more than a minor inconvenience to be brushed aside in favour of its own grand plans⁷²⁹, or alternatively as a means of extracting some cash.

349. Moreover, while ostensibly Orthios’ position is that it seeks only amends to the Order not that it be refused⁷³⁰ in actual fact the amendments it seeks, see for example para. 7.25.7 of Mr LeVasseur’s 1st proof, would remove Menter Môn’s ability to acquire the land needed in Plot 49 to make a connection to the Grid. The amendments are seemingly aimed at instead facilitating (at least in part) Mr Jesson’s recently proposed alternatives. But as was readily accepted by both of Orthios’ witnesses these are only alternatives if agreement is reached between Menter Môn and Orthios on a whole host of matters, including the price of any land interests to be acquired. The effect of what Orthios propose is that they would be placed in a ransom position that would mean the Morlais project could not go

⁷²⁶ See POE005 Mr LeVasseur’s 1st Proof of Evidence at paras 7.4 his answers in XX.

⁷²⁷ See RPE013 Mr LeVasseur’s 2nd Proof of Evidence at para 3.9.3 and 4.8.2.

⁷²⁸ See MDZ/P9 Mr Bell’s proof at para. 7.1.16, 2nd, 3rd and especially the 4th bullet points and the ES chapter 24 MDZ/25.25 at Table 25-25, p. 59. In his answers in XX Mr LeVasseur explained he based 10 on the number of people who might be employed in Plot 49 by Menter Môn and he was comparing that against the 100 jobs he says will arise from the REP plant (which has no viable extant consent – see below). That is comparing apples and pears. Without Plot 49 the Morlais project cannot happen and that means the loss of up to 240 direct jobs.

⁷²⁹ The grand plans are discussed below, but in terms of current employment on the entire 213 acre Orthios Mr LeVasseur’s evidence on this was confusing and contradictory – it would appear to be somewhere between 20 and 55 “*maybe more*” (see his 1st proof at para. 6.3.46ff and his answers in XX).

⁷³⁰ See POE005 Mr LeVasseur’s 1st Proof of Evidence at paras 2.5 and 7.25.7

ahead. The whole purpose of seeking powers of compulsory acquisition through the Order was to overcome the fact that agreement could not be reached.

(ii) Mr Jesson's alternatives, and revised plans submitted on 08/01 and 04/02

350. Mr Jesson may well have been working for Orthios for several years but he has only *"been involved specifically"* with the Morlais project and the discussions around it since August or September 2020⁷³¹. He was only instructed to *"provide Orthios with technical electrical consultancy support in relation to Morlais' project"*⁷³² at that very, very late stage, and had at best no more than a general awareness of the project prior to this⁷³³. He had no role in the many meetings and over 3000 emails⁷³⁴ to and from between 2016 and earlier this year, and it is only since September 2020 that he has been a main point of contact in negotiations⁷³⁵. Prior to September 2020 Orthios lacked any such technical expertise in the discussions⁷³⁶, and were instead focused only on the commercial terms – on the money, which they said should be agreed first before any technical issues were explored: see below. The alternatives put forward at the heart of Orthios case to this inquiry were first raised in its Statement of Case in September 2020.

351. It is also clear that Mr Jesson's understanding of the Morlais project and its evolution is somewhat insecure (not his fault, but a feature of his late appointment and his instructions). Thus,

(i) He suggests⁷³⁷ that assumptions made by Menter Môn about the constraints around drilling *"meant that they had no choice other than to plan a position for a grid connection in Parcel 49"* but this is just wrong⁷³⁸ because in fact Menter Môn *"were*

⁷³¹ See POE005 Mr LeVasseur's 1st Proof of Evidence at para 1.8 and Mr Jesson's 1st proof at para 1.8.

⁷³² Ibid.

⁷³³ See POE005 Mr LeVasseur's Proof of Evidence at para 1.3.

⁷³⁴ See MDZ/P8 Mr Billcliff's Proof of Evidence at para 3.1.

⁷³⁵ Mr RPE013 LeVasseur's 2nd proof at para 1.5 in so far as it seeks to suggest otherwise is false, as he accepted in XX.

⁷³⁶ In XX Mr LeVasseur referred to Richard Court providing such expertise. He said *"He's an electrical engineer. Was our main point of contact"* but of the 3,000 plus emails between Orthios and Menter Môn Mr Court is copied into two and sent none, and there is no record of him attending any meeting. When asked if this fairly reflected the limited level of involvement of Mr Court in these matters Mr LeVasseur was unable to say.

⁷³⁷ See his POE005 Mr LeVasseurs 1st Proof of Evidence at paras. 4.1.2 – 4.1.4.

⁷³⁸ See MDZ/P8 Mr Billcliff's rebuttal at paras. 4.14 – 4.17, and supported by Appendix P1.2.2 of POE005 Mr LeVasseur's 1st Proof of Evidence which at stages 4 and 6 shows Orthios proposing Plot 49 for use

told by Orthios that any more land than a tennis court size could not be accommodated in the existing substation”⁷³⁹. Thus, “Orthios suggested a plot in plot 49 where a ‘planned’ gas peaking plant could be re-sited and a small 150mm gas main could be moved to suit. This all happened in 2019, before Mr Jesson was retained by Orthios. So the substation was sited and then the drill routes were designed to meet the substation not the other way round”⁷⁴⁰. Thus, Mr Jesson’s underlying premise is wrong regarding the choice of position for a Morlais substation: “The substation was sited within parcel 49 as agreed with Orthios and was nothing to do with drilling. Menter Môn did however chose the least risk path to drill to the substation once the approximate location of the substation had been set”⁷⁴¹;

- (ii) Bizarrely, despite Plot 49 being proposed for Menter Môn’s use by Orthios. Mr Jesson’s instructions appear to have been to design alternative options that avoided as far as possible placing infrastructure in Plot 49⁷⁴². The reason for this is not readily apparent other than the fact that Mr LeVasseur has come to develop somewhat inflated notions of the value of Plot 49 for other wholly speculative developments (see below);
- (iii) In relation to drilling Mr Jesson’s evidence is wholly inconsequential. He says that National Rail (“NR”) “*may*” be prepared to accept a “*less onerous clearance requirement*” than 9m but that this depended on the geology and also was in any event “*at the discretion of Network Rail and will need to be confirmed*”⁷⁴³. He had himself had no discussion with NR and he was unaware that Menter Môn and NR had reached agreement at 9m and were (at that time) at engrossment stage. This has now been executed and NR’s objection is withdrawn.
- (iv) Mr Jesson’s feasibility study assumed that all of Orthios many grand plans – as set out in Mr LeVasseur’s Appendix P1.2.1 would come to fruition. He confirmed that

by Menter Môn . In XX Mr LeVasseur did not deny that Orthios had at various times proposed Plot 49 to Menter Môn as the location for their infrastructure on the basis that there was apparently insufficient room in the Switchyard. Mr Billcliff’s oral evidence was clear in XX “*Your client told us to go to Plot 49*”.

⁷³⁹ See MDZ/P8 Mr Billcliff’s Proof of Evidence in the Annex at paras. 4.29, 4.32 and 4.33.

⁷⁴⁰ See RPE011 Mr Billcliff’s Rebuttal Proof of Evidence at para. 4.16.

⁷⁴¹ Ibid. para 4.17.

⁷⁴² See POE005 Mr Jesson’s 1st Proof of Evidence at paras 4.2 and 7.1.1, and his answers in XX

⁷⁴³ See POE005 Mr Jesson’s 1st Proof of Evidence at para 4.3 and his answers in XX.

he used “*them as inputs for my study*”⁷⁴⁴, he used these “*as inputs to my design process Orthios' best view of user requirements over the next 10 years*”⁷⁴⁵. He didn't exercise any independent judgment on the likelihood of, or timing of, any of these plans in terms of planning, other consent requirements of funding⁷⁴⁶ notwithstanding that many are little more than a twinkle in Mr LeVasseur's eye: as to which see below. In terms of these inputs the old adage applies: rubbish in, rubbish out⁷⁴⁷.

352. Mr Jesson says⁷⁴⁸ that his alternatives are “*no more expensive*” than the scheme pursued by Menter Môn through the Order. But he accepts that this suggestion ignores entirely any land acquisition costs necessary for his alternatives⁷⁴⁹, and any sum demanded by Orthios for a connection under Option 1⁷⁵⁰. Option 1 being a connection to the Orthios busbar, Option 2 being a direct connection to National Grid. Both options rely on electrical infrastructure in the Orthios owned Switchyard that do not currently exist⁷⁵¹. Neither option has any planning permission⁷⁵². But the key issue is agreement. Both of the options – brought forward at the eleventh hour – require agreement to be reached between Orthios and Menter Môn on a range of matters including: (i) the technical details of how these options would work; (ii) the commercial terms which would include the price for the necessary land (which Orthios owns) as well as the cost of any connection in Option 1⁷⁵³; and (iii) how Menter Môn's position could be secured were Orthios to default⁷⁵⁴.

⁷⁴⁴ See Mr Jesson's answers in XX.

⁷⁴⁵ See POE005 Mr Jesson's Proof of Evidence at para. 3.4.

⁷⁴⁶ See Mr Jesson's answers in XX.

⁷⁴⁷ Mr Jesson did though rightly accept that these plans had changed and may well change again. See further POE005 Mr LeVasseur's Proof of Evidence at para 6.3.1.

⁷⁴⁸ See POE006 Mr Jesson's 1st Proof of Evidence at para 6.1.

⁷⁴⁹ And moreover, Mr Jesson in fact provides no costings for his alternatives at all.

⁷⁵⁰ See POE006 Mr Jesson's 1st Proof of Evidence at para. 6.1 and his answers in XX.

⁷⁵¹ See MDZ/P8 Mr Billcliff's Proof of Evidence at para 4.45 “*Signing a connection agreement with Orthios allowing connection apparatus would be easier if the physical assets were already in place, or if any agreement was directly attached to a land purchase. There is currently no physical asset to connect to and Orthios does not wish to sell land or land options for that purpose.*”

⁷⁵² See MDZ/RPE011 Mr Billcliff's Rebuttal Proof of Evidence at para 5.9 and the answers of Messrs. LeVasseur and Jesson in XX. And on Orthios' case there is no evidence before the inquiry as to the planning issues in relation to these options. That said the JLL letter (see App P4.2.7 to Mr LeVasseur's proof) on its face appears to concern these but Mr LeVasseur in XX denied this.

⁷⁵³ See MDZ/P8 Mr Billcliff's Proof of Evidence at para. 4.46 “*Connecting through Orthios at any stage would leave Menter Môn with much greater exposure to risk, than if connecting directly to the National Grid regulated asset*”, and see further below on this.

⁷⁵⁴ It was accepted by both Messrs. LeVasseur and Jesson in XX that agreement on all these matters was required for Mr Jesson's options to work.

353. Just looking at what needs to be agreed under these options in a bit more detail:

- (i) The NG infrastructure to which Menter Môn must connect – the 132KV cable sealing ends – lies entirely on, and surrounded by, Orthios land⁷⁵⁵, and it is accepted that Menter Môn needs to make such a connection for the Morlais project to go ahead⁷⁵⁶. The situation is unusual – an NG asset land-locked within private land⁷⁵⁷. Thus, without acquiring land or rights over land from Orthios the Morlais project simply cannot go ahead. Without compulsory acquisition powers the only alternative is that a price is agreed for this and after 4 years of negotiation no agreement has been reached;
- (ii) Mr Jesson's Option 1 – a direct connection on to an Orthios busbar. This requires agreement on multiple levels⁷⁵⁸:
 - a. Such a connection itself self-evidently requires agreement including on a price for this;
 - b. The connection requires a cable termination and switchbay⁷⁵⁹ to connect⁷⁶⁰ – which infrastructure would be sited on Orthios' land and require agreement including on price;
 - c. The secondary equipment required⁷⁶¹ would be located in a proposed shared equipment room – which does not at present exist – again on Orthios owned land and require agreement including on price;
 - d. The auxiliary equipment Menter Môn need⁷⁶² – for a battery facility and a statcom – would also be located in the Switchyard either on land reserved for

⁷⁵⁵ Mr Jesson in XX accepted the account of the facts relating to the NG infrastructure as set out in Billcliff's proof at para 4.6.3.1, 4.6.3.2 and 6.6.3.3.

⁷⁵⁶ See the answers in XX of Messrs. LeVasseur and Jesson.

⁷⁵⁷ The suggestion by Mr LeVasseur in his oral evidence that NG's infrastructure is a "guest" on Orthios' land because the registered title discloses no easements is flawed, because there is likely to be a wayleave and these are not registerable as Mr Jesson accepted in XX.

⁷⁵⁸ Each point was accepted by Mr Jesson in XX.

⁷⁵⁹ Marked MSB1 in Mr Jesson's App P2.2.1 to POE006 his 1st Proof of Evidence.

⁷⁶⁰ See POE006 Mr Jesson's 1st Proof of Evidence para 6.3.2.

⁷⁶¹ See POE006 Mr Jesson's 1st Proof of Evidence at para 6.3.3.

⁷⁶² See POE006 Mr Jesson's 1st Proof of Evidence at paras. 6.3.1 and 6.3.7.

Menter Môn for this or in shared facilities⁷⁶³ – so again all on Orthios owned land and thus require agreement including on price⁷⁶⁴;

- (iii) Mr Jesson's Option 2 – a direct connection to NG also requires agreement with Orthios on multiple levels:
 - a. This also requires a switchbay⁷⁶⁵ to connect –which infrastructure would be sited on Orthios' land and require agreement including on price;
 - b. Again, secondary equipment required would be located in a proposed shared equipment room – which does not at present exist – on Orthios land and require agreement including on price;
 - c. Again, auxiliary equipment Menter Môn need⁷⁶⁶ would also be located in the Switchyard – so on Orthios owned land and thus require agreement including on price⁷⁶⁷;
- (iv) Mr Jesson also proposes cables running across Orthios land (Plots 46, 47, 48 and 49) and drilling to be initiated on Orthios land⁷⁶⁸ and thus require agreement including on price for this;
- (v) Thus, as Mr Billcliff concludes "*[i]n both options A and B, all but the basic connection itself sit outside the existing limits of deviation of the TWAO therefore either option introduces significant planning risk*"⁷⁶⁹ Both options require agreement⁷⁷⁰; and this is accepted to be so by both of the Orthios two witnesses. And the fact is, that no agreement has been reached. The only other way to make the scheme happen is via the grant of compulsory acquisition powers via the Order. Without agreement

⁷⁶³ See POE006 Mr Jesson's 1st Proof of Evidence at para. 7.3.1.

⁷⁶⁴ This is proposed in the areas marked with blue and orange hatching in App P.2.2.1 to POE006 Mr Jesson's 1st Proof of Evidence or to be shared.

⁷⁶⁵ Marked MSB2 in Mr Jesson's App P2.2.2 to POE006 Mr Jesson's 1st Proof of Evidence .

⁷⁶⁶ See POE006 Mr Jesson's 1st Proof of Evidence at P2.2.2 and also section 7.3 and his answers in XX.

⁷⁶⁷ Again, this is proposed in the areas marked with blue and orange hatching in App P.2.2.1 to POE006 Mr Jesson's 1st Proof of Evidence or to be shared: see para 7.3.1 of Mr Jesson's 1st proof

⁷⁶⁸ See the blue line on App P2.2.1 and P2.2.2 to POE006 Mr Jesson's 1st Proof of Evidence and his answers in XX, and see also his 1st proof at para 7.1.3.

⁷⁶⁹ See MDZ/P8 Mr Billcliff's proof at para 5.9. The options are called Options 1 and 2 in POE006 Mr Jesson's 1st Proof of Evidence. In Orthios SoC they are called Options A and B (see MDZ/N14) and it is clearly these that the JLL letter (see above) is referring to.

⁷⁷⁰ See MDZ/P8 Mr Billcliff's Proof of Evidence at para 5.8.

– and there is none – there are it is agreed no alternatives to the Order. The Orthios proposed amendments to the Order are designed to facilitate their alternatives, but would not confer the necessary powers making it necessary for agreement to be reached on all the above.

354. Mr Jesson has prior to this case had no more than minor experience of CPO proceedings⁷⁷¹. He was unaware that Welsh guidance Compulsory Purchase in Wales and 'The Crichel Down Rules (Wales Version 2020)' (Circular 003/2019) states at para. 28⁷⁷² (emphasis added):

"Compulsory purchase is intended to secure the assembly of land needed for the implementation of a scheme where it cannot be acquired by agreement. However, if an acquiring authority waits for negotiations to break down before starting the compulsory purchase process, valuable time will be lost. Therefore, depending on when the land is required, it may often be sensible, given the amount of time required to complete the compulsory purchase process and the number of plots of land required to be assembled, for the acquiring authority to:

□ plan a compulsory purchase timetable as a contingency measure; and

□ initiate formal procedures.

This is particularly relevant for large scale infrastructure schemes. These schemes often involve multiple plots and parties which can make it impracticable in terms of both time and resources required for acquiring authorities to reach agreement with individual landowners on the sale of their land in advance of a CPO. Initiating compulsory purchase procedures in these circumstances can help to make the seriousness of the acquiring authority's intentions clear from the outset, which in turn might encourage those whose land is affected to enter more readily into meaningful negotiations" (emphasis added)

Mr Jesson accepted that given this, and the fact that his options require agreement and that none has been reached, rendered his conclusion in his proof that CPO was not required wholly incorrect⁷⁷³.

355. Following completion of evidence Orthios submitted further plans to this inquiry,⁷⁷⁴ which have themselves been subsequently revised following the submission by Menter Môn of a unilateral undertaking.⁷⁷⁵ We are not able to agree with any of these, and attach at Appendix 2 a table explaining specific responses. The plans are supposed to reflect the evidence given and so our case on those is set out herein.

⁷⁷¹ See Mr Jesson's answers in XX.

⁷⁷² Mr LeVasseur in XX was also unaware of this guidance.

⁷⁷³ See Mr Jesson's answers in XX. Para 7.2.2 of POE006 his 1st proof says "I have concluded that there is no reason for Morlais to compulsory acquire the land in Parcel 49 and that a separate substation for Morlais' use is not required."

⁷⁷⁴ Inquiry Docs – 056 and 057, and see 091 and 092.

⁷⁷⁵ See Inquiry Docs - 091, 092 and the Unilateral Undertaking at 108.

(iii) The Order provides a technically feasible solution for connection

356. Menter Môn's case is that:

- (i) If the Order is made and it is granted the compulsory acquisition powers that it seeks over Plots 46, 47, 48, 48, 49, 50 and 51 it will be able to connect to the Grid. It was accepted by Mr Jesson that "*technically NG can definitely do this*"⁷⁷⁶. He accepted that his own Option 2 (P2.2.2) shows how such a connection could be made direct to NG within Plot 49. He also accepted that there was room, indeed he says more than enough room (see below), to construct all the necessary auxiliary and secondary infrastructure required within Plot 49 and 50. In addition he did not dispute that cable routes are secured in Plots 46, 47 and 48, and access comes via the rights to be granted over Plot 51;
- (ii) Moreover, it is accepted that such a solution could be achieved within Plot 49 without disturbing the 132kV cables⁷⁷⁷;
- (iii) Further, the Order confers powers to carry out all the works necessary to make the connection: see Schedule 1, Part 2, Chapter 2. And, at no point has Orthios said further works need to be authorised⁷⁷⁸;
- (iv) Finally, the fact that the Order allows a connection to be made is further evidenced by the fact that Menter Môn benefits from a grid connection offer⁷⁷⁹.

⁷⁷⁶ See Mr Jesson's answers in XX.

⁷⁷⁷ Much of Orthios case focused on RPE011 Mr Billcliff's Rebuttal Proof of Evidence at para 5.6 and a possible *alternative* way of connecting that was considered at a meeting with NG. But nothing turns on this as there is accepted to be a technical solution within the lands the subject of the Order. Mr Jesson's point is that a multi-user solution in Plot 49 might require this (see para 3.1.3 of his 2nd proof). But he accepts that while undesirable it is something that could be done and that is technically feasible. Mr Jesson in his 2nd proof accepts in terms at para 3.1.3 that "[as] Menter Môn's technical consultant (Black and Veatch) have shown, it would be physically possible to effect a single User connection inside land parcel 49" in other words there is a technical solution but that this would in his view be "*an inferior technical solution for National Grid*".

⁷⁷⁸ Contrary to what was suggested in RX of Mr Jesson neither POE005 Mr Jesson's 1st Proof of Evidence at para 5.6 nor in POE005 Mr LeVasseur's 1st Proof of Evidence at para. 5.7.8 suggest that powers are needed for any additional works to make the connection.

⁷⁷⁹ See Mr MDZ/P8 Billcliff's proof para. 9.3.5 "*Accepted offer with National grid for 180MW transmission connected capacity at Penrhos sub-station. Connection due in September 2023. Offer accepted by Menter Môn 28th August 2020. See Appendix 2.*" Mr Jesson accepts there is such an offer, see POE006 1st proof at para. 5.1 and his answers in XX.

357. Mr Jesson's argument is that despite what is proposed being obviously technically feasible Menter Môn cannot be sure of connection if the Order is made for essentially three reasons. Dealing with each in turn:

- (i) The Menter Môn solution is a single-user solution and this is inefficient as it will necessitate duplication of infrastructure (e.g. multiple sub-stations) and this would be a breach of the RIIO regulatory model and its statutory duties⁷⁸⁰. The answer to this is simple. A multi-user solution requires agreement between Orthios and Menter Môn (as well as NG). There is no such agreement. Such a solution also requires Orthios land, and the price sought for this is directly relevant to what is the most cost-efficient solution⁷⁸¹. The connection offer that Menter Môn holds is not predicated on a multi-user solution. There is no dispute that NG would generally prefer a multi-user solution and shared infrastructure⁷⁸². So would Menter Môn but absent agreement with Orthios this is just not possible. In that case Menter Môn and NG are content to proceed with a single-user solution;
- (ii) The solution proposed might require further land beyond the Order for any NG infrastructure⁷⁸³; but it does not, Mr Jesson's own alternative P2.2.2 (Option 2) shows a solution for the NG infrastructure wholly within Plot 49;
- (iii) Menter Môn's solution might interfere with Orthios existing rights to connect⁷⁸⁴; this is without merit. Orthios has pre-existing rights under agreements with NG⁷⁸⁵ and the Order contains protective provisions in Schedule 10 and 11 to protect NG and avoid any impact on its statutory duties and other obligations etc. No criticism is levied by Orthios of these draft provisions, nor are any suggestions made as to more being needed, Orthios has (see below) withdrawn its request for protective provisions. Moreover, NG are not objecting and are thus content that the Order

⁷⁸⁰ See e.g., RPE014 Mr Jesson's 2nd proof at para 3.1.1.

⁷⁸¹ In RX Mr Jesson made the point that NG had its own CPO powers, but that is not a cost-free option. There are the costs and risks of that process and the compensation to be factored in.

⁷⁸² The email at Mr Jesson's App P3.2.2 does not suggest that NG are pursuing a multi-user connection, it states that it was seeking to purchase the Switchyard "*in order to connect the Morlais Anglesey Marine Energy scheme*". Orthios reply has not been disclosed.

⁷⁸³ See e.g., POE006 Mr Jesson's 1st Proof of Evidence at para 5.4.1.

⁷⁸⁴ See e.g., POE 006 Mr Jesson's 1st Proof of Evidence at paras. 5.4.2 and 5.4.3.

⁷⁸⁵ See RPE014 Mr Jesson's 2nd Proof of Evidence para. 2.3.

would not cause it to be in breach of its obligations. Moreover, it was accepted in terms by Mr Jesson that there was no physical or technical reason why giving effect to the Order would prevent Orthios connecting to the Grid⁷⁸⁶. It is not the intention of Menter Môn to block Orthios connection, and the protective provisions will ensure it cannot. The suspicions of Orthios are understandable given its own intentions here, it assumes that with the boot on the other foot Menter Môn would act similarly poorly to the way it has. But Menter Môn is a third sector company not driven by profit, and more importantly the Order has protective provisions that absolutely ensure this will not occur.

358. Finally, Mr Jesson⁷⁸⁷ seeks to suggest that the land take proposed “takes up around 6,000 square metres of land which is, in my view at least 2,000 square metres more than is really necessary”. This is a bad point for a number of reasons:

- (i) Bizarrely, at the same time Mr Jesson argues that to facilitate connection more land may be required than is provided for in the Order for NG infrastructure. So, at the same time Orthios argues that the illustrative layout for a sub-station on Plot 49 takes too much land and that more land may be required;
- (ii) The land take is based on four things – acknowledging that the proposed sub-station is illustrative only at this stage – (i) that no agreement with or co-operation from Orthios⁷⁸⁸ will be achieved (ii) advice provided by Black & Veatch consultant engineers⁷⁸⁹; (iii) EU, UK and industry standards for construction, installation and operation of high voltage (HV) electrical infrastructure and apparatus⁷⁹⁰ and (iv) a “reasonably envisaged worst case scenario”⁷⁹¹. In cross-examination Messrs. LeVasseur and Jesson both accepted all of these were reasonable inputs into a

⁷⁸⁶ See his answers in XX.

⁷⁸⁷ See RPE014 Mr Jesson’s 2nd Proof of Evidence at para 3.1.6.

⁷⁸⁸ See RPE011 Mr Billcliff’s Rebuttal Proof of Evidence at para. 4.11 “The final size of the substation had to be based on a ‘without Orthios co-operation’ assumption as there was, and is, no guarantee of this. It was reduced following internal challenge and discussion with B&V to 1.5 acres as it needed to be self-contained and fenced to Electrical Safety Quality and Continuity (ESQC) standards, and contain access roads for maintenance and heavy lifting. Had there been co-operation with Orthios from the outset, and some certainty that this would be secured this may have enabled a smaller footprint to be the subject of the TWAO but there was no co-operation at that time and no guarantee of it now absent a deal being done”. In XX Mr Billcliff explained that going it alone required car parking, messing facilities, storage, cables, lighting and drainage.

⁷⁸⁹ See MDZ/P8 Mr Billcliff’s Proof of Evidence at para. 2.4.

⁷⁹⁰ Ibid.

⁷⁹¹ Ibid.

decision on land-take for the Order. The last of these factors is especially important; if Menter Môn is too limiting on its land take and it turns out that more land is needed it hands a ransom to Orthios and that is the end of the project. But despite this the evidence shows that Menter Môn did all it could to reduce the land take.

- (iii) The requirements for infrastructure on Plot 49 are set out in detail in a table in Mr Billcliff's App 5 to his rebuttal, which is an e-mail from Black & Veatch and includes an NG substation⁷⁹², a Morlais 132kV substation, a Morlais 33kV substation, battery storage, Statcom, a transfer enclosure, harmonic filtration and access roads⁷⁹³.
- (iv) Mr Jesson accepts that in terms of footprint the technology choice can influence the land take⁷⁹⁴ and, of course, as this stage the sub-station is illustrative with a final decision on many design matters and also technology yet to be made;
- (v) Moreover, there are other factors that might mean that not all of Plot 49 can be utilised:
 - a. Plot 49 is brownfield land within an industrial site and the contamination issues have yet to be resolved. While decontamination work has been undertaken by Orthios: (i) this work has not been produced to this inquiry; (ii) it is yet to be verified/validated⁷⁹⁵; and (iii) it does not have regulator sign-off⁷⁹⁶. Mr Billcliff's evidence explained why the possibility of contamination remains a reasonable concern for Menter Môn ⁷⁹⁷.

⁷⁹² It appears to be accepted that the Order as amended would allow transfer of powers in the Order to NG if necessary.

⁷⁹³ Mr Carter XXd Mr Billcliff on the first part of this email but not on the requirements as set out in the table. Moreover, in relation to the first part of the e-mail shows Menter Môn instructing Black & Veatch to look at refining and reducing the area of land sought and not including 415m2 for harmonic filtration to keep the land take down to the lowest possible level. When it was put to Mr Billcliff in XX that the size of the footprint was driven by the timetable for the ES he denied it saying that *"It was more to do with me not wanting to go further than an acre"*.

⁷⁹⁴ See POE006 Mr Jesson's 1st Proof of Evidence at para 3.8 and his answers in XX.

⁷⁹⁵ See RPE013 Mr LeVasseur's 2nd Proof of Evidence at paras 3.7.3 and 4.2.3.

⁷⁹⁶ See POE005 Mr LeVasseur's 1st Proof of Evidence at para. 3.6.

⁷⁹⁷ See RPE011 Mr Billcliff's Rebuttal Proof of Evidence at para. 2.5 and his answers in XX.

- b. There are a number of pre-existing services in Plot 49 (underground) including a 132kV cable easement, some 11kV cables and a small watermain. It is Orthios own case that careful regard must be had to these, and that they might influence the location of any built form⁷⁹⁸. Taking some additional land to account for this cannot be said to be in any sense unreasonable. This remains an issue with Orthios' proposed 2021 amendments.

(iv) The challenges on reaching agreement

359. So, it is clear that compulsory acquisition is needed absent full agreement being reached between Orthios and Menter Môn. In that context there are a number of key points.

360. First, Orthios is not a statutory undertaker. It is a wholly unregulated group of companies. Menter Môn wanted to price an option to connect to NG through Orthios. This was to be one of several options that could be priced, reviewed by Menter Môn and the best option chosen. This is common practice on power projects. Any costs provided by regulated companies such as Scottish Power Energy Networks (SPEN) and NG are formulaic and they are heavily regulated on their charging methodology/price control and other matters such as complaints procedures, outage durations⁷⁹⁹, asset quality, transparency of ownership. That is not the case with Orthios and this is a real concern for Menter Môn⁸⁰⁰. Because Orthios is not a regulated body and therefore does not come with a number of the statutory and legal safeguards that Menter Môn requires to reassure its funders⁸⁰¹.

361. Mr LeVasseur suggested in his written evidence that while Orthios will not be licensed as an independent network operator ("IDNO") it would publish all its rates and operate in all its capacities as if it was an IDNO⁸⁰². But he accepted in cross-examination that this was wholly meaningless. The standard conditions in an IDNO licence under s. 6(1)(c) of

⁷⁹⁸ See POE005 Mr LeVasseur's 1st Proof of Evidence at para 3.7.4 and his answers in XX.

⁷⁹⁹ Mr RPE011 Billcliff's Rebuttal Proof of Evidence at para. 5.2 raises a concern around the risk that unnecessary outages may be required by Orthios.

⁸⁰⁰ See RPE011 Mr Billcliff's Rebuttal Proof of Evidence at para 3.7 and Mr LeVasseur's answers in XX.

⁸⁰¹ See RPE011 Mr Billcliff's Rebuttal Proof of Evidence at para 4.5 and answers in XX from Messrs. LeVasseur and Jesson.

⁸⁰² See RPE013 Mr LeVasseur's 2nd Proof of Evidence at para. 3.9.4.

the Electricity Act 1989 run to nearly 300 pages and require approved charging methodologies, compliance with industry codes and standards, auditing etc. The overall aim being to prevent the abuse of any monopoly power and/or dominant position. None of this applies to Orthios who can act as capriciously as they choose in order to maximise their financial gain even if that is highly detrimental to the public good.

362. Second, these issues are especially acute for the Morlais project because it is funded predominantly by the public sector. Because of that every financial decision is under additional scrutiny. This is very different to a privately owned and privately funded company⁸⁰³. Not being a regulated body under OFGEM has always meant that Menter Môn has needed to provide an alternative way of securing the protection it and its funders need to maintain the security of any electrical connection for the full life of the project⁸⁰⁴. That can only mean a comprehensive agreement⁸⁰⁵.

363. Third, the risks are greater here given the nature of the company and the way it has behaved. Thus, it is Mr Billcliff's evidence that "[t]he dealings Menter Môn have had with Orthios to date add to the risk profile as it has been so difficult to get proper engagement, there must be the risk that this would repeat itself in the future. The complex company structure is also a concern. This is not just a concern for the funders per se it goes to the heart of securing the delivery of the Morlais project and the delivery of all the benefits that flow from it"⁸⁰⁶. On the company structure it is labyrinthine, and the public records show⁸⁰⁷, it has net liabilities of over £33 million. Any joint solution requires Orthios to deliver infrastructure and that there be a guaranteed way of dealing with what happens if it fails to do so, for example if it ceased trading or simply breached any agreement⁸⁰⁸.

⁸⁰³ See RPE011 Mr Billcliff's Rebuttal Proof of Evidence at para 4.2 and Mr LeVasseur's answers in XX.

⁸⁰⁴ See MDZ/P8 Mr Billcliff's proof at para 10.8.12, and Mr LeVasseur in XX accepted that this was a reasonable position for Menter Môn to take.

⁸⁰⁵ Mr LeVasseur in XX suggested (for the first time) that Orthios *might* seek to become an IDNO. But it is not such a body as matters stand and no evidence has been put forward that it has even started to investigate such a possibility.

⁸⁰⁶ See RPE011 Mr Billcliff's rebuttal at para 5.3.

⁸⁰⁷ As Mr LeVasseur accepted in XX.

⁸⁰⁸ Mr RPE011 Billcliff's rebuttal at para. 4.7 says "*Môn is concerned as to whom the contract counterparty will be if agreement is reached and how Menter Môn's interests will be protected throughout the life of that agreement, the lack of any regulation and the risk on matters such as insolvency of any of the companies, given the very complex company structure.*" And Mr LeVasseur in XX accepted there were genuine concerns.

364. Fourth, there are restrictions in the title deeds across all the relevant plots that require approval by third parties⁸⁰⁹ for disposals of land⁸¹⁰. These would be overridden by compulsory purchase, but without this agreement is needed by not just Orthios but these third parties to any transfer. They may or may not be obtainable and Orthios led no evidence on the likelihood of such agreements being given.

365. Fifth, the negotiations between Menter Môn and Orthios date back to 2016, but until September 2020⁸¹¹ Orthios approach “*had always been about trying to agree key financial terms and financial benefits to Orthios before consideration of both the remaining commercial terms that make up an agreement*” before considering the technical issues⁸¹². The email in App 1 to Mr Billcliff’s rebuttal shows that this was indeed the approach⁸¹³. The demand for £6 million in that email, which was sent on behalf of Orthios, is telling.⁸¹⁴ Orthios purchased land including most of Plot 49 and almost all of the Switchyard for £400,000 in 2015⁸¹⁵. They are now looking for £6million for a mere fraction of this land. The same theme emerges from the response to the request to do ecological surveys⁸¹⁶. So, while Orthios say they support the Morlais project, in fact the project is seen as little more than an opportunity to turn a quick buck. There is really no doubt that absent the Order Menter Môn will be held to ransom.

⁸⁰⁹ Mr Robert Colin and Anglesey Aluminum Metal Limited.

⁸¹⁰ See RPE013 Mr LeVasseur’s rebuttal at P4.2.1.

⁸¹¹ Between the service of the Order and September 2020 Mr LeVasseur demanded all communication be lawyer only. Mr Billcliff in his rebuttal at para. 3.10 says “*Mr Levasseur himself directed Menter Môn to make all communications through the company lawyer on 20th September 2019 following postponement of a technical meeting brought about by receipt of TWAO communications with which all affected landowners were served. The TWAO should have come as no surprise as all the affected landowners including Orthios were told about the Menter Môn order submission and most understood and continued private treaty negotiations without detriment. Instead Orthios reacted badly to the TWAO and this hindered discussions for a lengthy period.*”

⁸¹² See RPE011 Mr Billcliff’s rebuttal at para. 3.4 and 3.6.

⁸¹³ And Mr LeVasseur accepted this in XX.

⁸¹⁴ MDZ/P8 Mr Billcliffe’s proof of evidence, Appendix 1

⁸¹⁵ See RPE013 Mr LeVasseur’s 2nd proof of evidence at App 4.2.1, Title CYM671912.

⁸¹⁶ See RPE011 Mr Billcliff’s rebuttal at para 3.12 “*Menter Môn requested access to the Orthios site to undertake ecological surveys as this was the last area of the whole route to be surveyed. This work had to be done to complete the Environmental study work otherwise the project would be delayed. Orthios responded by email that no access to site would be granted until the deal was signed off. The following is the text from the email response on the same day: ‘As per previous emails at the moment we have no agreement in place with Morlais to progress the project and until this is agreed and signed off no access to the site will be granted. We are waiting on Morlais to come back with an offer currently but if it means delays until next year so be it. Regards Sean.’ In XX Mr LeVasseur it was put to him that the approach was “I need to agree the money, financial terms” and at this point what Sean is saying is you can’t come and do your surveys. That’s what he says”. He replied “He says exactly what he says”.*

366. Sixth, it is also telling that of the proposed land acquisitions the sole remaining objector (save for the unusual Conygar/Horizon position discussed above) is Orthios. Menter Môn has done everything to reach agreement with all affected landowners, see above. It has been very successful in this regard. But with Orthios this has proved impossible.

367. Seventh, much of the communication has been without prejudice and cannot be shared, but the above gives a flavour of the position. As matters stand it can be reported to the Welsh Ministers that despite 4 years of negotiations, many meetings, over 3000 emails there is no agreement. And thus, the only way to allow the Morlais project to proceed is compulsory acquisition. Without this Menter Môn will be held to ransom and the project will not happen.

(v) The necessity for acquisition of the Orthios plots

368. **Plots 46 and 47:** In relation to Plots 46,⁸¹⁷ and 47 it is accepted by Orthios that if there is to be a connection that at least sub-soil rights are required by Menter Môn over these plots⁸¹⁸.

369. **Plot 51:** In relation to Plot 51:

- (i) The acquisition here is limited to new rights of access for construction and maintenance which are essential to the project⁸¹⁹, without it again Orthios would have a ransom;
- (ii) In his written evidence Mr LeVasseur raised the impact on AMG Alpoco UK Limited's who also use the access⁸²⁰ but Menter Môn has reached terms with Alpoco;

⁸¹⁷ The application version Book of Reference (MDZ/A16) referred to Plot 46 as being in NR's ownership. Since then, Orthios has succeeded in registering ownership to part of Plot 46, adjacent to its existing landholding in Plot 47. The updated book of reference and plans (Inquiry Docs - 74 to 76, and see the latest plan at Inquiry Doc - 097) have redrawn the dividing line between Plots 46 and 47 to reflect the revised ownership, such that Plot 46 is now solely owned by NR, and the part which has been registered in Orthios ownership has been incorporated into an expanded plot 47.

⁸¹⁸ See POE005 Mr LeVasseur's 1st proof at para 3.3, his answers in XX and Mr Jesson's alternatives in P2.2.1 and P2.2.2.

⁸¹⁹ See POE005 Mr LeVasseur's 1st proof at para 6.1.3 and his answers in XX.

⁸²⁰ See POE005 Mr LeVasseur's 1st proof at para 6.210.

- (iii) Orthios have invited further provisions to protect them in relation to their use of the access. Menter Môn has provided a unilateral undertaking to the inquiry for that purpose.⁸²¹
- (iv) Orthios' SoC refers to the construction of a new sub-station in Plot 51 but Mr LeVasseur confirmed that this was just off this plot⁸²².

370. **Plots 48, 49 and 50:** for these purposes we can focus on Plot 49. Plots 48 and 50 are small plots which are integral to Plot 49 but are separate as they are under different titles. We should also note here that the border of Plot 49 has been re-drawn to avoid taking a portion of a building owned by Orthios.⁸²³

371. Mr LeVasseur's position in his written evidence⁸²⁴, and initially, in oral evidence was that Plot 49 *"is an active 132kV cable corridor which requires areas of set-back on both sides of the cable route, thus consuming a fair swathe of land. Area 49 also hosts the main water supply line for the Orthios site, as well as the cable route for the 11kV secondary power supply provided by SPEN. The land is not disused; the land is purposely left without buildings or above ground developments to preserve this vital utilities and services corridor"* (emphasis added). This evidence is though wholly unsustainable. Any suggestion the land is not developable is misconceived given:

- (i) It falls within the redline of the extant Biomass permission;
- (ii) Orthios has itself put forward Plot 49 as the location for Menter Môn's infrastructure to be placed on⁸²⁵;
- (iii) Orthios were in 2019 proposing a gas peaking plant on Plot 49⁸²⁶;

⁸²¹ Inquiry Doc – 108.

⁸²² See Mr LeVasseur's answers in XX.

⁸²³ See Inquiry Docs - 074-076.

⁸²⁴ See RPE013 Mr LeVasseur's 2nd proof at para 3.7.4.

⁸²⁵ See POE006 Mr LeVasseur's 1st proof App. 1.2.2 stages 4 and 6, and his answers in XX.

⁸²⁶ See MDZ/P8 Mr Billcliff's App to his proof at para. 1.429, pp 104 – 105 and Mr LeVasseur's answers in XX.

- (iv) More recently, Orthios have sought to place its own commercial battery development on Plot 49⁸²⁷.

372. In cross-examination Mr LeVasseur said he had turned down many opportunities to develop Plot 49 and that what this was about was money. It would require a project of significantly high value – multimillion pound annual returns – to develop Plot 49⁸²⁸. Not bad for a plot that formed a small part of a larger area of land purchased for £400,000 in 2015. Indeed, as Mr LeVasseur put it for *“I’d consider it for two grammar school girls with a lemonade stand if it made enough money”*. This is as clear a ransom situation as can be imagined. Only compulsory acquisition can solve this.

373. Before leaving the plots and turning to the potential impact on Orthios’ own grand plans it should be noted that:

- (i) Contrary to suggestions in Mr LeVasseur’s written evidence⁸²⁹ the Order does not seek to acquire the *“whole of Orthios switchyard”* or to control it rather it takes a small corner of it, say maybe 10%⁸³⁰ in order to secure the necessary connection;
- (ii) In his oral evidence Mr LeVasseur feigned horror at the extent of the acquisition in the Order e.g., the taking of Plot 49 and which includes only a very small part of the Switchyard and yet in re-examination of Mr Jesson the following exchange took place suggesting that it is Orthios’ case that more land should have been sought to be acquired(!):

“Mr Carter: In relation to the extent of the Order land, are you aware of any practical or other reason why Menter Môn could not have promoted an order that included switchyard rather than plot 49?”

Mr Jesson: I can’t think of any reason why they couldn’t have done so and promoted a better version of the Order.”

(vi) Orthios’ grand plans

374. The case against compulsory acquisition advanced by Orthios through its witnesses seeks to suggest that it will compromise its many, many plans for its site. These plans are,

⁸²⁷ See RPE013 Mr LeVasseur’s 2nd proof para. 6.3.35 and 6.3.36 and his answers in XX.

⁸²⁸ See RPE013 Mr LeVasseur’s 2nd proof at para 3.7.6 and his answers in XX.

⁸²⁹ See paras. 4.15.1, 7.25.3, 7.19 and 7.22 of POE005 Mr LeVasseur’s 1st proof.

⁸³⁰ Mr LeVasseur accepted this in XX.

to put it kindly, somewhat fluid. Most are at an embryonic stage and the record of any actual delivery on site is being kind - limited.

375. Before looking at the various proposals the following general points arise.

376. First, the Orthios site is truly vast. 213 acres in total⁸³¹. The full extent of compulsory acquisition is in the order of 3 acres, and likely to be less on a permanent basis – that is to say essentially c. 1% of the site. And, in terms of the Switchyard – see above – maybe 10% of this at most.

377. Second, at the heart of the case advanced in this regard is App 1.2.1 of Mr LeVasseur's first proof. But this plan has no planning status at all⁸³² – it is not an approved plan to any consent. Its status is said to be "*For discussion*". It is dated about the same time as Mr LeVasseur's proof and has clearly been produced for the purposes of this inquiry.

378. Third, as matters stand the vast majority of the site sits empty and cleared of a large amount of the buildings and structures that previously stood on the site. It simply beggars belief to suggest, as Mr LeVasseur seemed to, that he would not be able to find space on site for these other projects (to the extent they exist), such as battery storage.

379. Fourth, in evidence in chief Mr LeVasseur, the COO, was asked how much Orthios had already invested in the site and how much investment they had secured. He was somewhat extraordinarily unable to give any figure for either to his own Counsel. Later in cross-examination he plucked randomly from the air a figure for the latter, but never had one for the former. The lack of evidence to support any of this is telling. His evidence must be treated with considerable caution.

380. Looking then at all the matters set out in the evidence it is necessary to consider:

- a. The Jetty;
- b. Area 7 Waste to Energy Pellet Facility;
- c. Area 8 Logistics Hub;
- d. Area 6 Aquaculture, hydroponics, research and development;
- e. Data centre;

⁸³¹ See POE005 Mr LeVasseur's 1st proof App P1.2.9, and RPE011 Mr Billcliff's rebuttal at para 4.13.

⁸³² In RX Mr Billcliff referred to it as having no status and being a mere sketch.

- f. Areas 1, 2 and 3: Plastics to oil;
- g. The extant Biomass permission;
- h. The proposed Energy Centre Business/RDF facility;
- i. The gas peaking plant;
- j. The battery proposal.

a. The Jetty

381. The jetty will in no way be impacted by the acquisition of land proposed here. It is at the furthest end of the site and has an extraordinarily limited connection to the land the subject of the Order. It is accepted that the area around Plot 49 holds the 11KV supplies for the jetty, but these will not be affected save for very minor power outages. Raising this is a complete red herring.

b. Area 7 Waste to Energy Pellet Facility

382. Any suggestion of an adverse impact on what is proposed here is misconceived. The position is that this large existing A frame building benefits from a lawful development certificate granted as recently as September 2020. It is not though currently in use. Mr LeVasseur in his oral evidence announced funding had been secured but no actual evidence of this has been produced. But in any event this building is again located on the far side of the site from the land the subject of the Order and not a single potential adverse effect on this proposal was identified by Mr LeVasseur in either his written or oral evidence.

c. Area 8 Logistics Hub

383. This is a proposal for which there is no permission, no application for permission and no evidence of any pre-application discussions⁸³³. It is an empty and unused piece of land at the edge of the site. It has no physical or functional connection whatever to the land the subject of the Order, and is located well away from it. The only potential impact identified by Mr LeVasseur⁸³⁴ is on the railway sidings owned by Orthios and which he is concerned might be impacted by the proposed HDD. This siding runs parallel to the main line. And the fact is that what Menter Môn has agreed with National Rail in respect of the latter is a depth clearance of 9m – the maximum clearance. This provision will not just protect the

⁸³³ See Mr LeVasseur's answers in XX.

⁸³⁴ See POE005 Mr LeVasseur's 1st Proof of Evidence at para. 6.3.20 and his answers in XX.

main line it will also fully protect Orthios' sidings. Ironically, despite this apparent concern about the sidings Messrs. LeVasseur and Jesson elsewhere in their evidence both argue less clearance of the railway is in fact possible and hence less protection. Any impact on this proposed Hub, which is at a truly embryonic stage and without any funding, is just non-existent.

d. Area 6 Aquaculture, hydroponics, research and development

384. Again, this is a proposal for which there is no permission, no application for permission and no evidence of any pre-application discussions⁸³⁵. This part of the site stands empty and unused and is located very far from the land the subject of the Order. There is no issue here at all were this proposal ever to come forward and there is not a jot of evidence it will.

e. Data centre

385. This is not a proposal shown on the plan in P1.2.1. It was explained by Mr LeVasseur that this could be located on Area 6 – that is the area proposed for the *Aquaculture, hydroponics, research and development*. The same points made above apply. Again, this is a proposal for which there is no permission, no application for permission and no evidence of any pre-application discussions⁸³⁶. It is pie in the sky.

f. Areas 1, 2 and 3: Plastics to oil

386. This occupies Areas 1, 2 and 3 on Plan P1.2.1. Areas 1 and 2 – PDU 1 and PDU2 are located in existing buildings and said to be being installed currently – albeit no actual evidence of this such as photographs, invoices has been produced. Menter Môn is unaware of any planning permission of lawful development certificate in relation to this proposal. In relation to Area 3 – PPC – this is located in a large area of cleared space on the site. Again, as regards the PPC this is a proposal for which there is no permission, no application for permission and no evidence of any pre-application discussions⁸³⁷. It is also unclear whether these activities might need an environmental permit. If so, there is no evidence of one having been applied for let alone obtained. It may be that the very small-scale proposals PDU1 and PDU2 have some funding, but the evidence in support of what

⁸³⁵ See Mr LeVasseur's answers in XX.

⁸³⁶ See Mr LeVasseur's answers in XX.

⁸³⁷ See Mr LeVasseur's answers in XX.

is said to be £26 million is non-existent. It seems clear that later stages of this plan do not have funding⁸³⁸. None of these areas in issue are directly affected by the land the subject of the Order. Moreover, the only alleged impact of the Order on these proposals is said by Mr LeVasseur to be⁸³⁹ the impact of an outage when the Morlais project connects but this is undoubtedly capable of being dealt with through proper management. It provides the flimsiest imaginable basis to resist the making of the Order.

g. The extant Biomass permission

387. Orthios benefits from an extant deemed planning permission and s. 36 Electricity consent for a 299MW biomass plant. It is agreed though that this is not viable⁸⁴⁰.

388. The red line for this consent includes some of Plot 49 and 50 the subject of the Order. What has been approved in this location is largely a maintenance and contractor's yard with also very much over to one side – and occupying a very small part of Plot 49 – proposed tanks for aqueous solutions etc. including services and char conveyor line, char storage and collection and vehicular access⁸⁴¹. The deemed permission and the consent were granted as long ago as 2011 and have been amended. They were implemented by the construction of the foundations of a bicycle store⁸⁴². In other words, the most minimal act of implementation imaginable. Save for that the area within the redline lies wholly undeveloped and it is accepted that what is consented is unviable. The majority of the appendices to Mr LeVasseur's 1st proof are taken up with documentation relating to the extant consent. That is not surprising given that it is one of the only proposals Orthios has that has any sort of consent. But given that it is agreed to be unviable little can turn on this.

h. The proposed Energy Centre Business/RDF facility

389. This is a proposal to amend the extant Biomass consent to allow for an electricity generating station for biomass and/or RDF, that is to say to allow for the burning of

⁸³⁸ See POE005 Mr LeVasseur's proof at para 4.7.2 and 4.7.3.

⁸³⁹ See POE005 Mr LeVasseur's proof at para. 6.3.44.

⁸⁴⁰ See MDZ/P8 Mr Billcliff's proof App at paras. A3.6 and 3.7, referring to what is said on Orthios own website; Mr LeVasseur's proof at paras. 6.3.8 and 6.3.9 and his answers in XX.

⁸⁴¹ The approved plans were submitted to the inquiry by Orthios after oral evidence was complete.

⁸⁴² See POE005 Mr LeVasseur's 1st Proof of Evidence App P1.2.7.

waste⁸⁴³. There is no dispute but that this requires further consent, as the extant Biomass consent limits the fuel type to biomass only⁸⁴⁴. It seems also that changes are also proposed⁸⁴⁵ to the infrastructure and processes. Thus, the boilers permitted are to be replaced by “*high temperature pyrolysis (HTP) units*”, the steam turbine generators are to be replaced by “*gas engines*” and the hybrid cooling towers replaced by “*syngas treatment scrubbers*”. Moreover, it seems that what is proposed now is a 10MWe energy centre and then a further 3 x 30MWe on the broad footprint of the previously proposed virgin biomass energy centres but with a lower height⁸⁴⁶ and less of an overall footprint⁸⁴⁷.

390. The proposals are at the earliest possible stage of development thus:

- (i) Contrary to what was said in Mr LeVasseur’s 1st proof⁸⁴⁸ no application for a variation of the s. 36 consent has been submitted⁸⁴⁹;
- (ii) The proposals require not just variation of the s. 36 consent but in seems also in parallel planning permission is being sought from the Welsh Government for a proposal of national significance⁸⁵⁰;
- (iii) An initial (first) meeting was only held with PINS in August 2020, and it was made clear that an ES would almost certainly be required and that a Habitats Regulations Assessment might also be required. This is not very surprising given the emissions will be wholly different from RDF compared to virgin biomass. Burning waste requires an ES. Despite advising that Orthios should make either a screening or scoping request they have in fact done neither. Mr LeVasseur was unable to say if any work had been done in this regard. He was unaware if there had been discussions with NRW or any further ecological work. Mr LeVasseur

⁸⁴³ See POE005 Mr LeVasseur’s 1st Proof of Evidence at paras. 6.3.23 and 6.3.24, App 4.2.6 of his 2nd proof and his answers in XX.

⁸⁴⁴ See POE005 Mr LeVasseur’s 1st Proof of Evidence App P.1.2.6 p 23.

⁸⁴⁵ See POE005 Mr LeVasseur’s App 4.2.6 to his 2nd proof.

⁸⁴⁶ See POE005 Mr LeVasseur’s 1st Proof of Evidence at paras. 6.3.23 and 6.3.24.

⁸⁴⁷ Mr LeVasseur accepted this in XX.

⁸⁴⁸ See para 6.3.32.

⁸⁴⁹ See RPE013 Mr LeVasseur’s 2nd Proof of Evidence at para 4.5.4 and his answers in XX. His mistake in the first proof is pretty inexplicable and he constantly mistakenly referred to an application having been submitted in his oral evidence. For the COO he demonstrated a shocking lack of understanding of consent processes that were relevant to the business.

⁸⁵⁰ See RPE013 Mr LeVasseur’s 2nd Proof of Evidence at para 4.5.5. and his answers in XX.

demonstrated no understanding at all of what an ES might require. That is why any suggestion that this scheme is a few months from submission is laughable⁸⁵¹;

- (iv) The only evidence put forward to suggest that there will not be any planning issues is a letter from JLL⁸⁵² but this is clearly not about this proposal and Mr LeVasseur's attempt to suggest otherwise only underlines his woeful lack of understanding of these matters⁸⁵³;
- (v) It seems inevitable the proposal will also require an environmental permit. But Mr LeVasseur had no understanding of such a possible need or any information about the same. Given that this is said to be the core of the business such a lack of understanding of even the basics by the COO is striking, it does not add any credibility to these proposals.

391. Moreover, in terms of any impact on these proposals from the Order the suggestion that is made⁸⁵⁴ is that Plot 49 is needed for a contractor laydown. Thus, the following points arise:

- (i) This proposal is years away from any consent, and may well never obtain it;
- (ii) The proposal has a smaller footprint than the extant Biomass consent meaning that what was proposed in Plot 49 in that extant but non-viable biomass consent could easily be moved;
- (iii) There are clearly other places within the huge site, both within and outwith the redline of the Biomass consent, that could be used for a contractor's laydown;
- (iv) No plans (even early ones) appear to exist or have been submitted to this inquiry for any proposed layout for this proposed Energy Centre Business;

⁸⁵¹ See RPE013 Mr LeVasseur's 2nd Proof of Evidence at para. 4.5.4, suggesting a Q2 2021 submission date.

⁸⁵² See RPE013 Mr LeVasseur's 2nd Proof of Evidence App P4.2.7.

⁸⁵³ The letter is headed "Rectifier Yard options", and the first para says refers to proposed options in that Yard. This is clearly about Mr Jesson's two options. The letter is silent on feedstock and refers to s. 96A of the 1990 Act non-material amendment as a possible route to consent. Any suggestion that this was possible for the proposed Energy Business Centre would be ridiculous.

⁸⁵⁴ See POE005 Mr LeVasseur's proof at para 6.3.30.

- (v) Little if any consideration appears to have been given to construction matters, and nothing like a construction plan has been formulated;
- (vi) The suggestion that Plot 49 is the only location for the contractor's laydown is without any justification, it is a contention made solely to try and bolster Orthios' weak case against the Order;
- (vii) The funding position on this scheme also remains at best uncertain⁸⁵⁵ and unevidenced.

i. The gas peaking plant

392. This was proposed on Plot 49 in 2019 and said to have been subject to an agreed JV. It never happened. It has been abandoned.

j. The battery proposal

393. Orthios' case on any impact on this proposal is quite hopeless. There are a number of points:

- (i) it was first mentioned to Menter Môn in September 2020, a year after the Order was applied for;
- (ii) again, this is a proposal for which there is no permission, no application for permission and no evidence of any pre-application discussions;
- (iii) it has not even been decided what size of battery is to be proposed with Messrs. LeVasseur and Jesson giving conflicting evidence⁸⁵⁶;

⁸⁵⁵ See RPE013 Mr LeVasseur's 2nd proof at para. 4.5.1 and his answers in XX.

⁸⁵⁶ See POE005 Mr LeVasseur's 1st proof at para 6.3.37 (2 hour) and POE006 Mr Jesson's 1st proof at para 8.2. This is relevant because it goes to footprint. They also seem to conflict on where this is proposed with Mr LeVasseur saying it is in the Switchyard (see his 1st proof at para. 5.9.3) and Mr Jesson saying it is in Plot 49.

- (iv) it is accepted that this proposal need not go on Plot 49 but could go anywhere on the site⁸⁵⁷;
- (v) the losses alleged to arise from the acquisition of Plot 49 on this proposal only arise if it cannot be located elsewhere and it can on Orthios own evidence;
- (vi) in any event the losses suggested by Mr Jesson⁸⁵⁸ are without any basis – and appear to be the battery project total gross revenue as opposed to the value to the landowner, or even the value to the project owner which would need to take into account cost of the asset, O&M, cost of capital, and so is not comparable. Moreover, this figure appears to be reliant on all the other Orthios proposals coming to fruition.

394. We also refer you to para. 398 below, where we address Orthios' request for a restriction on the electrical generation capacity, given that we understand this particular plan lies behind that request.

(vii) Conclusion

395. In conclusion, Orthios' many, many grand and shifting plans have little if any sound evidential basis. They are embryonic at best⁸⁵⁹, and many have no real bearing on the land the subject of the Order. And the appreciation for what is required to obtain consent for some of what is proposed is lacking at a fundamental level. Orthios' plans lack credibility. In short, this Order would facilitate the Morlais project – a project that will bring real public benefit – and which will have no real impact on the Orthios proposals such as they are. But even if it did have any minor effect on these proposals Orthios would in any event be able to claim compensation.

7. The order and its controls

396. The latest version of the draft Order is at Inquiry Doc – 102. Mr Maile and Ms Moss, partners at Eversheds Sutherland, ran you through the controls at the final Order RT last

⁸⁵⁷ See Mr LeVasseur's similar comment on the Menter Môn proposal for a battery at paras. 5.9.2 of his 1st proof, his answers in XX and those of Mr Jesson.

⁸⁵⁸ See his POE006 1st proof at para. 8.3.

⁸⁵⁹ Many are in fact half-baked.

week.⁸⁶⁰ With the exception of certain CPO matters, no changes have been raised by third parties which have not been either incorporated or addressed by other means.

8. The deemed planning permission and s. 106

Planning permission

397. The deemed planning permission has been agreed almost entirely with IoACC. The latest version is at Inquiry Doc - 098. The sole outstanding matter between us relates to proposed condition 17, and in particular whether it should contain a clause requiring the list of consultees to be agreed with IoACC. Our position on this was outlined in a note from Eversheds Sutherland, which you have in the core documents.⁸⁶¹ We have explained how socio-economic impact will be monitored, and how local businesses will be engaged. We do not accept there is a need to agree the list of consultee businesses with IoACC – the concern is that that list will be disproportionately dominated by those who shout the loudest, rather than the preserve of the academics who do, actually, know how to undertake this work.

398. Mr Carter, for Orthios, has raised at the fifty ninth minute of the eleventh hour, a request for whether the deemed planning permission should limit the amount of battery storage.⁸⁶² Sir we wholly refute any such suggestion, and our response to that was in a letter submitted by Eversheds which you have at Inquiry Doc 095. We will not lay it out here.

S. 106

399. The final draft s. 106 agreement is attached at Inquiry Doc - 79. Again it is fully agreed with IoACC.

400. SCC has raised a query regarding whether businesses should be compensated for the imposition of the project. We have dealt with that, but again submit the answer is unequivocally no. The sea is a shared resource – kayakers do not own it. Business who make money from it do not own it. They do not fall to be compensated because other users wish to make use of it, and have been granted permission to do so in the public interest.

⁸⁶⁰ Order RT, Day 15 AM session 1

⁸⁶¹ Inquiry Doc – 054.

⁸⁶² Deemed planning permission RT, Day 15 AM Session 1.

401. Ms Wong for SCC also asked if the definition of “receptors” could be rewritten to include sea users. We have little to say on this – it is a matter for IoACC and NRW to decide how they spend the s. 106 money.

9. Other matters

402. There weren’t a tremendous amount of other matters arising during this inquiry which have not been addressed in the above. You will recall Mr Llewellyn raised health and safety concerns regarding EMF and EMR if the landfall fall-back option was deployed, and sought clarification whether Menter Môn would comply with relevant government guidelines.⁸⁶³ We have submitted a note to Mr Llewellyn and the inquiry on this⁸⁶⁴ and as he confirmed at the start of Day 11 we have picked up productive discussions offline. We do not therefore think this is a matter the inquiry need be concerned with.⁸⁶⁵

Conclusion

403. This has been a long closing. The longest closing either of us has ever written (or, indeed, hope to write).

404. You have, before you, an application for a truly ground-breaking project. The first of its kind anywhere in the world. It has extraordinarily strong policy support, as Mr Bell outlined for you. It would bring millions of pounds in investment into Anglesey, Wales and the UK, at a time when all so desperately need it. It would play a key role in bringing forward tidal stream technology – not just here but the world over – which is a key component in the renewables portfolio and one which, uniquely, can help plug that baseload gap. It also provides the opportunity to learn – to gather the data which absence has caused such problems at this inquiry, to move forward the sum total of human knowledge and to get this technology moving.

405. The arguments arrayed against us have been pressed, at length. In many cases, at significantly greater length than they deserve. None provide a reason for refusing the

⁸⁶³ Socio-economic RT, Day 5 AM session 1.

⁸⁶⁴ Inquiry Doc – 053.

⁸⁶⁵ Statements of Mr Llewellyn, Day 11, AM Session 1.

application before you today. You have before you clear lines demarcating the PDE. That has been used to provide an extraordinarily detailed environmental assessment, in full compliance with the EIA and Habitats Requirements.

406. Sir, with regard to the ecological impacts of this project, of the many, many impacts assessed, the points taken against us cover, actually, relatively few. We have managed to reach agreement with NRW on the impact on migratory fish, benthic ecology, and, large portions of onshore ecology. Of the impact on marine mammals – which, attract the strongest of European protections and in this case provide the tightest constraint on the project – we are agreed that, through the use of the EMMP, the risk of collisions of such mammals with tidal turbines can be kept at a level below AEOSI. Of the impact on Razorbill and Guillemot – which do not attract European status here, they are but a material consideration – no points are taken by NRW, the relevant regulator, only by the RSPB (and NWWT). But RSPB agree with us, too, that the first phase – that proportionate, scaled back, 10-12MW Phase One, constrained by 0.7 bottlenose dolphin PBR – can be put in the water with no significant impact on Razorbill or Guillemot. Where they struggle is in believing the EMMP can work. We have laid out extensively why we think it can, but the key point is if we cannot prove to NRW and the Welsh Ministers that it can work, they don't let us put anything into the water. It is, really, as simple as that. The risk is on us, but provided the Welsh Ministers trust NRW (which we submit they should), they can be sure (a) what the worst case scenario is, (b) that Phase One won't have a significant impact, and (c) that NRW is never going to let us get to the stage where this project could have such an impact.

407. Concern is, understandably, raised about the character and appearance of the locality, given the undeniably beautiful nature of the location. Again, though, we have done everything we possibly can to mitigate those effects (we have agreed to use HDD unless it is not possible, have designed the onshore works to minimise their impact, and put in place the DDP which will require an SLVIA) and providing compensation where that is not possible (see the s. 106 Agreement). IoACC agrees we have done all we can, and no longer objects on this basis. There are some remaining objections from NRW, but these are fairly minor.

408. We have done all we can, too, to minimise any socio-economic impacts. We have not just undertaken considered, thorough assessments but again agreed with IoACC a

package of mitigation measures to be put in place if (contrary to our expert work and predictions) it does have any sort of negative economic impact. A lot of time was spent on sailors and kayakers under this heading but, Sir, we urge you to keep in perspective that is a relatively small part of economy, to the extent that it would suffer any harm (a proposition with which we disagree, given that economic activity is measured on land and so would have fallen to be assessed).

409. With regard to navigational impacts, we have undertaken two NRAs, in full compliance with the relevant regulators guidance – indeed the MCA noted we had gone above and beyond what was required. And please bear in mind that again there will be an updated NRA before anything goes into the water. So, is it unsafe? No, it is not. In terms of navigational safety, the MCA agrees with us the eastern inshore passage is suitable for 90% of traffic – the only, only outstanding potential concern is vessels under sail without a motor. But you heard from the Vice Commodore of Trearddur Bay that they adopt the very suggestions put forward by Cdr. Brown as to why this concern is minimised. Indeed they went beyond that and noted they use ribs to accompany their fleet of unpowered vessels. We note SCC has concerns but those are largely based on substantiated fears and a distrust of the MGN 543 process – this is not the time to ventilate that. Is it too big of an imposition? No Sir, unequivocally not. The sea is changing, and there is a clear policy imperative that users of the sea must adapt to that. The imposition is, frankly, going to be minimal – look at Inquiry Doc - 043, and recall the fact that that is a full deployment. The NIMBAism that is present in trying to stop this world-leading, climate change fighting project so that Yachtsmen and kayakers can continue to monopolise the sea is not only unjustifiable but is frankly galling. It should be given zero weight.

410. And it's against that background we come to the CPO. We have established that there is a clear and compelling need for this project. We have outlined that everything has been done to minimise the land take. We can do no more. The primary objector is Orthios. As we have outlined, at length, their basis of objection, and their "grand plans" are wholly illusory at this point in time. Their suggested "alternatives" to safeguard those plans would do nothing more than give them a ransom over this project and the public funds that go to support it. We would urge you to dismiss their objections.

411. So that's it, Sir, from us. This is a truly, truly ground-breaking project, with a huge range of benefits. The objections are all either meritless, or manageable. We urge you to recommend to the Welsh Ministers that they make the Order sought.

JAMES MAURICI Q.C.

NICK GRANT

LANDMARK CHAMBERS

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11th February 2021

Annex 1:
Comments on Orthios' Proposed Order and Land Plan Changes
(Inquiry Docs 91 and 56)

Plot No	What the draft Order provides	Proposed Amendment by Orthios	Comments
46 & 47	Subsoil only parcel, below 9m (article 26 and Schedule 8)	<p>Subsoil only parcel, below 5m</p> <p>Proposed amendments to article 26(5) and Schedule 8 to revise the depth, which would also mean that Network Rail's interests in Plots 46 and 45 would be affected by the proposed change</p>	<p>Not agreed</p> <ol style="list-style-type: none"> 1. Orthios' proposed revised plan (Inquiry Doc 56) shows only that part of the original Plot 46 (shown on Land Plan No 8 (MDZ-A17.8) which has recently been registered in its ownership. On Menter Môn's revised plan (Inquiry Doc - 097) that land is now subsumed within Plot 47, leaving a reduced Plot 46 that is wholly owned by Network Rail. Whilst not shown on Orthios' proposed plan, it is assumed that Orthios intend that the proposed change to a no less than 5m subsoil depth shall apply to the entirety of the original Plot 46. Orthios do not indicate what is proposed to happen to Plot 45, which is owned by Network Rail, and currently in the draft Order for subsoil only acquisition at a depth below 9m. 2. Menter Môn would need to consult Network Rail regarding the proposed change to Plot 46. Whilst a subsoil only acquisition requirement of a depth greater than 5m would still permit subsoil acquisition at a depth greater than 9m, as per the current draft Order, Network Rail may have concerns if the Order permitted acquisition at a shallower depth than what has been agreed with them. 3. The proposed changes would require technical approval from Network Rail and it does not reflect the agreements which Menter Môn has negotiated with them so there is no certainty that this reduced depth

			<p>would be acceptable to Network Rail and their permission would be contingent on test borehole results (paragraph 5.23 of Mr Billcliff's Rebuttal).</p> <p>4. Agreement from Network Rail would be required in order for the drill to break surface within Plot 49A and there may not be sufficient space to meet drill gradient requirements if Plot 49D (as now proposed by Orthios) is to be at a depth greater than 5m below surface. The final break out point is to be determined by the practicalities of the drilling (paragraph 4.14 of Mr Billcliff's Rebuttal).</p> <p>5. In any event, Menter Môn does not require a depth shallower than the 9m which it proposes in the draft Order (para 4.14 of Mr Billcliff's Rebuttal). This issue only arises if seeking to accommodate one of Mr Jesson's solutions in his first Proof (appendices P2.2.1 and P2.2.2) in order to find cables and turn a sharp left. Such a solution cannot be achieved within the Order for the reasons explained by Mr Billcliff in evidence.</p>
48	Full acquisition powers including a potential for a restrictive covenant to protect cable infrastructure in the event that not all of the land is required for above ground infrastructure (Part 2 of Schedule 6).	<p>No longer exists as a single plot and therefore has been deleted from schedules 1 and 6.</p> <p>Now split into 3 parcels:</p> <ul style="list-style-type: none"> - Plot 48A – subsoil only below 5m, therefore added to schedule 8, restrictive covenant also added to Part 2 of Schedule 6; 	<p>Not agreed</p> <p>1. Plot 48 is only marked as a separate land parcel in the draft Order because it is owned by a different Orthios entity to Plot 49. Menter Môn's requirement for this land is to all intents and purposes the same as that for Plot 49 and it is not appropriate to seek to separate it out as proposed by Orthios. However, notwithstanding Menter Môn's primary position in this respect, we comment below on the revised parcelling and land rights sought by Orthios.</p> <p>New Plot 48A:</p>

	Also listed in Chapter 2 of Part 2 of Schedule 1 as land on which the specified grid connection works may be constructed	<ul style="list-style-type: none"> - Plot 48B – rights of access only, therefore added to part 1 of schedule 6; - Plot 48C - subsoil only below 5m, therefore added to schedule 8, restrictive covenant also added to Part 2 of Schedule 6 	<p>2. As above regarding the concerns about the revised depth.</p> <p>New Plot 48B:</p> <p>3. Whilst cables would not be required to be laid in the newly created Plot 48B, access rights are required, and, depending on the proximity of the cables, a restrictive covenant may be needed to protect underground infrastructure in the vicinity.</p> <p>4. Furthermore, the access rights proposed by Orthios over Plot 48B (and 49C) are too restrictive given that they are limited to passing between Plots 49A, 48B, 49C and 51 and do not provide for access to all plots in which works are proposed to be undertaken.</p> <p>New Plot 48C:</p> <p>5. The proposals fail to allow access rights over the continuation of the road in Plot 48C, which would be required in addition to the subsoil rights.</p> <p>6. Equivalent concerns apply to those raised above regarding the revised depth, and the ability to restrict works over and in the vicinity of the cables.</p>
49	As above	<p>No longer exists as a single plot and therefore has been deleted from schedule 6.</p> <p>Now split into 4 parcels:</p> <ul style="list-style-type: none"> - Plot 49A - a substantially reduced freehold acquisition plot; 	<p>Not agreed</p> <p>1. The proposed Plot 49A does not allow sufficient space to site the substation (see Mr Billcliff's proof MDZ_P08 fig 14 page 35 and the parameters for the same as controlled by condition 6 of the proposed planning conditions). Nor does it allow space to install the infrastructure necessary for future expansion (Mr Billcliff's Rebuttal para 5.15).</p>

		<ul style="list-style-type: none"> - Plot 49B - subterranean access rights only to connect to the existing 132KV cables, therefore added to Parts 1 and 2 of Schedule 6; - Plot 49C - right of way only therefore added to Part 1 of Schedule 6; - Plot 49D - subsoil only below 5m, therefore added to schedule 8, restrictive covenant also added to Part 2 of Schedule 6 	<ol style="list-style-type: none"> 2. The proposal does not allow access to the existing cable sealing ends which are owned by National Grid, (Mr Billcliff's proof MDZ-P08 para 4.6.3.3). This would severely limit the options for connecting to the National Grid. As Mr Billcliff explains in his Rebuttal paragraph 8.3) Plot 49 necessary extends over the National Grid cable sealing ends to facilitate the least risk National Grid connection above ground onto the existing cable tails. 3. The revised proposals from Orthios would instead limit access to the National Grid cables along the National Grid easement within Plot 49B, which, as Mr Jesson himself explains in his 2nd Proof, paragraphs 3.1.3 and 3.1.4, would be an inferior technical solution for National Grid and a higher risk connection, requiring the breaking in to old oil filled cables. 4. Plot 49A does not take into account construction land requirements. There will be a requirement for laydown and micro-siting of the proposed substation after invasive ground investigation, see Mr Billcliff's Rebuttal paragraphs 2.5, 4.10.& 4.11. 5. Nor do the proposals take account of the extension of the National Grid 132KV grid cables from Plot 49D into Plot 49A, which significantly reduces the land available for construction in proposed Plot 49A, as do the water main along the northern boundary of the proposed Plot 49 (see the underground services drawing at appendix 10 to Mr Billcliff's Rebuttal.) 6. Plots 49B and Plot 49D - no access is provided to these parcels.
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			<p>7. Plot 49D – the same concerns apply to those raised above regarding the revised depth and the requirement for Network Rail approval.</p> <p>8. Whilst the principle of the amendments proposed by Orthios is not agreed, were these amendments to be accepted it is noted that Chapter 2 of Part 2 of Schedule 1 would need to be amended to refer to Plot 49A rather than Plot 49.</p>
50	As above	Removed entirely, therefore removed from Schedule 1 Part 2 Chapter 2, and from Schedule 6 Part 2	<p>Not Agreed</p> <p>This is only marked as a separate land parcel because it is owned by different Orthios entity to Plot 49. Menter Môn's requirement for this land is to all intents and purposes the same as that for Plot 49 and it is not appropriate to seek to separate it out as proposed by Orthios.</p>
51	Rights of access only (Part 1 of Schedule 6)	No change	

Annex 2: Responses to speeches of objectors

As one would expect given the length of the speech most of the points raised by objectors have been fully anticipated and dealt with in the main speech. The following annex picks up on a number of points in the speeches of objectors where some more specific response is required. Failure to deal with or specifically refute any other points should not be taken as acceptance.

	<u>Para. No. and point raised</u>	<u>MM response</u>
<u>1. Orthios</u>	6: “[MM] has no track record of delivering anything remotely similar to the scheme here”	See section 9 of Mr Billcliff’s Proof of Evidence which deals with delivery progress and milestones and goes wider than just funding. Note also that Mr Billcliff in his oral evidence referred to the two hydro schemes that Menter Môn has helped to deliver.
	10 “Nor can MM’s willingness to offer back land which is not required justify a failure properly to make its case for acquisition in the first place”	This appears to miss the point about offering land back. The land is still needed in the first place for construction purposes, but not necessarily post construction, and that will depend on the final design. Just because land is needed for construction purposes doesn’t mean that it isn’t needed at all. A ransom can still be created where enough land is not included in the Order to allow for construction. The Order contains a range of powers to permit a flexible approach to be taken in due course (e.g. Art 28 on temporary possession) but the spatial extent of the land <i>required</i> is not altered, just the eventual means of intervention. A similar mistaken focus on final footprint appears in para 45 of the Orthios closing.
	“It is wholly inappropriate for MM to indicate its plans with such a level of generality, having regard to the tests to justify interference with their land, which must not be confused with the parameters that are justifiable in the determination of a planning application.”	It is not possible to divorce the planning parameters from the case for the need for the land as Orthios seeks to do. The land take needs to be sufficient to be able to deliver the consented envelope of the project.
	31: “Orthios has spent or secured funding for a total of £74.6m of development thus far”	This is seeking to place reliance on a figure that Mr LeVasseur was unable to give when asked in EinC. He then plucked this

		figure wholly from the air in cross examination. There is no evidence at all submitted in support of this figure. It should not be given any weight.
	31: "[Mr Billcliff] not been on the Orthios part of the Order Lands for 2 years, has only been driven once around the wider site at the same time as his last visit and did not ask Orthios about their plans when preparing his evidence"	As was explained in RX of Mr Billcliff, he has been to see the site a number of times recently, including in the Autumn of 2020 albeit he did not go on site. He explained that was able to observe any activity – or rather the complete lack of it - from the raised railway bridge close to the site on that and other occasions. He also said that there are lots of parts of the site that are visible from public vantage points. Finally, he explained that members of his team including Mr Ian Cook had actually been on site more recently than him.
	43: suggestion made MM done inadequate survey work	In RX Mr Billcliff made clear that the level of survey work done was fully commensurate with what had been done at this stage on other renewables projects he had been involved in. This suggestion also conveniently ignores that Orthios at times have deliberately frustrated attempts to survey in order to pressure Menter Môn into a deal.
	40: "It is not satisfactory for MM to say or imply, as was attempted during the inquiry, that Orthios directed MM to avoid or stay out of any part of the existing switchyard. This is not accepted and, in any event, it is for MM to justify the land take it proposes."	The evidence is, as per the closing speech, clear that Orthios did direct MM to the very land it seeks to acquire through the Order, namely Plot 49. Orthios own evidence supports this being so. It is somewhat extraordinary that Orthios continue – even in closing - to deny what is contained in their own evidence.
	44: suggestion that land-take influenced by timing of ES	This is a thoroughly bad point that was not made out by the oral evidence. It seems to be based on misreading an email. Both of Orthios witnesses in fact accepted that the matters considered in setting the size of the land take were reasonable.
	46: "There is no reason to suggest that the substation might need to be located further north east and no evidence (as opposed to assertion) that the area might be needed for materials storage or contractor parking or the like. Indeed, given MM's case that Orthios has limited prospects of achieving all of its proposals, it ought to have	Leaving aside the clear evidence that Orthios directed Menter Môn to Plot 49, before changing its mind he last sentence appears to be suggesting that Menter Môn should have looked elsewhere on the Orthios site for laydown, construction, parking areas etc. Three points: (i) Orthios do not dispute that land would be needed for these purposes; (ii) the agreement of Orthios would be needed (and hence a

	investigated whether other parts of the Orthios site could have been made available to it for such purposes.”	ransom triggered if this was not land in the Order) and (iii) this contradicts the evidence of Mr LeVasseur who you will recall said in relation to Orthios own plans that there was nowhere on the whole of their vast site that Orthios would be able to use for such purposes.
	Paras 55 - 59	<p>This is a gross mischaracterisation of the position, suggesting that Menter Môn are relying on rolling back the cables to a point outside of the Order land. Menter Môn’s clear preference is to connect to the busbars in that part of plot 49 that includes them, whether via Orthios (behind the meter) or via NG. Rolling back the cables is a fall back only, and Mr Jesson accepted in terms that this could be done within plot 49. The rolling back is dealt with in footnote 836 in the closing, because it is a non-point given Mr Jesson’s evidence. But as this has been sought to be resurrected (absent any evidential basis) - see further Mr Billcliff’s Rebuttal Proof of Evidence:</p> <ul style="list-style-type: none"> o Para 5.6 - roll-back is purely an illustration of alternative solution - not the preferred method. NG has many tools to ensure that a connection can be made within parcel 49. NG and Menter Môn believe a connection can be made within parcel 49, and so does Mr Jesson. o para 5.9 - Menter Môn preferred option is a connection to the NG busbar o Para 8.1 - NG have made a grid connection offer to Menter Môn which has been accepted. There is no doubt that the offer can be fulfilled by NG. The NG offer can be delivered wholly within parcel 49. Clearly this is why parcel 49 was defined as it was covering the existing NG easement and cable tails. Mr Jesson’s own evidence supports this.
	57: ability to transfer powers to NG	<p>Orthios accepts the Order allows this <i>if</i> it was necessary, and the other points made on this are therefore irrelevant.</p> <p>The closing simply ignores the concessions made by Mr Jesson in XX.</p>
	67: “it is not appropriate for MM to be given free rein over plot 49. Orthios has commenced	This is contradicted by the Orthios closing at para. 25 where it is said “It is accepted that the consent will not be implemented

	construction on the 299 MW virgin biomass power plant. Part of this planning consent includes the designation of much of plot 49 to be used as a maintenance and contractor's yard, products storage including tanks for aqueous solutions, char conveying, storage and collection facility"	in its approved form given market and policy changes that have occurred since it was issued." While it is then said in para. 25 that "Orthios have plans to seek new consents for a varied scheme, following the same general layout" this is then contradicted in para. 26 where instead it is said that Plot 49 is to be used for a commercial batter storage operation. Even in closing Orthios "grand plans" are confused, unsubstantiated and contradictory.
	76	Orthios have helpfully accepted that the unilateral undertaking is accepted as dealing with the access issue.
	78: the suggestion is a lack of evidence on the capacity needed for battery storage, a point it is confirmed by Orthios was raised for the first time at the Order RT on 5 February 2021.	But this point if it was challenged, should have been the subject of cross examination of Mr Billcliff. It was. It cannot be pursued now. More generally this is answered in the letter from Eversheds Sutherland dated 09 February 2021.
<u>2. NRW</u>	4: "long-term, temporary loss "is surely self-contradicting"	This classification is used in other project examples, where de minimis has been concluded e.g. the Norfolk Vanguard: see paras. 4.16, 4.20 and 5.34 of Mr Campbell's Proof of Evidence.
	15: "15.The Applicant has also relied on a report commissioned by Natural England: 'Small-scale effects: How the scale of effects has been considered in respect of plans and projects affecting European sites - a review of authoritative decisions' ("the NE Report") (see Appendix 1 to Mr Campbell's proof). This "report" prepared by consultants is not guidance adopted by Natural England: a disclaimer in the 'Foreword' to the report states that the contents of the report "do not necessarily represent those of Natural England". In any event, a "report" published by Natural England has no application in Wales."	It is odd that NRW take these points given that: 1. What is important is the case-law digested in this document and which is very much relevant and applicable in Wales; 2. Indeed the NRW closing itself picks up on and relies on the NE Report in discussing the case-law.
	16: suggestion that Mr Campbell's proof contains "'No meaningful consideration of the conservation objective ..." (see also para. 21)	Consideration of the conservation objectives is set out in Terrestrial Ecology Update MDZ/F9. Mr Campbell's Proof of Evidence focusses on the small-scale

		nature of effects but does deal with conservation objectives at para 1.7.
	22: "Regard is also to be given to "the location of the affected areas in terms of its geographic position in the designated site and in terms of its position relative to the project". NRW considers it highly relevant in this case that the protected habitat is 'positioned' on a vertical cliff-face where extreme conditions from the sea present particular challenges for surveying work. These challenges make it impracticable to be "convinced" that the proposal would have no adverse effect on the integrity of the SAC. NRW unquestionably has a significant degree of "doubt" about whether such an effect would be avoided: Waddenzee at [56]-[57]."	This appears to suggest that the survey work done by the project could not have adequately recorded the habitats present. But NRW have agreed to the survey in correspondence (see Appendix 17 of Mr Campbell's Proof of Evidence).
	24 - 28: consideration of <i>Sweetman</i> , North Norfolk Vanguard, Walney and Gilwen.	The key point remains that all of these cases demonstrate that thresholds exist where de minimis can and has been used in case law, if other criteria (e.g. rarity, recoverability) are met.
	30: Henborth	NRW's response to the Henborth case also doesn't address the point that the decision has been made without a habitat assessment to confirm whether Annex I habitats have encroached onto the dilapidated path, and the new path is wider than the existing.
	58 - 59: further proposed amends to Deemed planning permission condition 7(c)	MM is happy to agree to this amendment.
<u>3.</u> <u>RSPB</u>	Para 5 "this trial scheme"	This is not a proper characterisation of the MDZ.
	Paras 24 - 27	These paragraphs of RSPB's closing are incorrect to suggest that the phasing and mitigation is "held over" to the ML. Whilst the detail on the content of the EMMP will be in the ML, the EMMP is expressly secured in the Order and there can be no suggestion that it doesn't provide a mechanism for prevent impacts by regulating phasing and the delivery of mitigation/monitoring.
	Para 43(v): "The adoption of an avoidance rate higher than 95%	This concerns the reference in Dr Grant's Rebuttal to the use of the 98% avoidance

	<p>based on observations at a particular development cannot simply be extrapolated to other tidal array developments as a matter of generality. As identified in the 2020 State of the Science Report at 3.6.2, research by Waggitt et al (2017) suggests that species habitat use of tidal-stream environments may vary greatly between development sites. It is notable, in that regard, that the Y3 Environmental Monitoring Report for the Shetland Tidal Array - relied on by Dr Grant in his Rebuttal Proof as an situation in which a 98% avoidance had been used in the HRA for a future phase - highlighted that the vantage surveys demonstrated a low presence of diving birds in Bluemull Sound, a presence lower still in the area immediately around the turbines, which results indicated that the likelihood of near-field encounters between diving birds, and risk of negative environmental effects was very low.”</p>	<p>rate (as applied to the ERM to estimate the collision risk) by SNH in their HRA for a future phase of the Shetland Tidal Array (STA). [Referred to at para 4.3 of Dr Grant’s Rebuttal Proof of Evidence; the SNH HRA in question is Appendix 1 of that Rebuttal].</p> <p>RSPB make the point (as they did during evidence and cross examination) that the EnFait report on this work states that there is a low abundance of diving birds at this site, and more generally in the Bluemull Sound (which is the stretch of water in which the STA is located). They suggest that this explains the low number of near field encounters between diving birds and devices recorded at the STA, suggesting that the risk of negative environmental effects was very low. The implication is that the application of a 98% avoidance rate could be appropriate at the STA but (because of the low bird abundance, and hence risks, at the STA) we cannot extrapolate this to the Project site, nor use it as (part of our) justification for focussing our assessment on the 95-99.9% range of avoidance rates.</p> <p>However, the commentary made on bird abundance in the EnFait report is within the context of a location which is in the Shetland Isles, which holds some of the largest (if not the largest) seabird populations in the UK.</p> <p>In fact, the estimated breeding season collisions (as estimated at 98% avoidance) for the most abundant diving bird at the STA (black guillemot) is 16.3 (Table 4, p13 of Appendix 1 of Dr Grant’s Rebuttal). This compares with breeding season collision estimates (at 98% avoidance) of 25 for guillemot and 5 for razorbill at the Project site for Phase 1 (Table 3.1 of MDZ/A31.10). Therefore, it is likely that the abundance of the most common diving birds at the STA and the Project site might not be so dissimilar (given abundance has a big effect in determining</p>
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		collision risk), and more importantly the predicted risks to the most common diving birds at the two sites are actually quite similar. So, contrary to RSPB's view, the situation at the STA may well be representative of the Project site in this regard (and reference to the STA in providing supporting evidence for the Project's position on avoidance rates and evidence of the absence of collisions is appropriate).
	Para 46(2): deals with the achievability of monitoring collisions at devices, and bullet point (ii) includes a few quotes from Dr Grant's EinC where he is said to have stated that this is challenging	<p>It is useful to set out the full account of what Dr Grant said based on our notes:</p> <p>"The monitoring of collision devices is in contrast to other two components of monitoring programme we've spoken about. We do get into the realms of new technology, novel methods and so there are undoubtedly technological challenges here. The technology to a degree is unproven. There could be limitations to what is feasible to achieve with it. On the other hand there are - this technology is being used at other device or deployment sites and there is evidence that there is evidence it is producing outputs of some use, and it is showing evidence of some success (albeit to a degree limited). The recent NRW commissioned report on the effects of tidal power on marine wildlife came to the conclusion of there is evidence of some limited success of this type of technology, that pointed largely to trials using active sonar to detect diving seabirds. I think the other - one of the other sources of information is recent report from Shetland tidal array using video cameras to record wildlife (including birds) interacting and have the potential to report collisions.</p> <p>The report and summary of information provided in the report from that site suggests - is encouraging. It showed an ability to record bird encounters, movements and occurrences. So, definitely this is in the realms of the "new to a degree, undoubtedly challenges with it", but there is evidence from other</p>

		<p>projects - it could be - it may well work and give information on collisions potentially on interactions there."</p> <p>NRW Review ABPMer MDZ/F15.2 EnFait for Nova, appendix to RSPB Proof of Evidence</p>
4. SCC	No further comments	
5. RYA	<p>"It is not clear to us how the visual survey data was eventually incorporated into the applicant's various vessel traffic assessments, since no reference is made to it anywhere."</p>	<p>The visual survey data was used in the traffic assessments to identify tracks detected by radar and to allow the assessors to confirm the presence of smaller vessels such as jet ski, SUPs and Kayak that would not be detected on radar and did not carry AIS.</p> <p>Their inclusion in the NRAA is explicitly mentioned in section 7.3.7 of the NRAA Page 52 - 54 and the assessment of risk to unpowered craft is recorded at Annexes B (page B2 Hazard ID number 6 and 7) and C (page C2 Hazard ID 5 and 6 of the NRAA).</p>
	<p>"Firstly, as set out in the MCA Statement of Case and the MCA/Applicant Statement of Common Ground, the MCA recommends that the views of recreational users should be taken into account and that the applicant should reach agreement with the RYA and local users, particularly with regard to the navigation of the inshore passage by sailing vessels."</p>	<p>This is incorrect, the MCA did not say that the applicant should reach agreement with the RYA and local users.</p>
	<p>"the applicant's submitted Environmental Statement indicated that amenity issues would be dealt with within the Navigation Risk Assessment Addendum (NRAA, MDZ/11)"</p>	<p>No reference is given for where this is said to have been stated in the ES; in any event as discussed in the closing the issue of amenity has been assessed.</p>
6. Mr & Mrs Llewellyn	Requests to become statutory consultees	Not possible, or justifiable.
7. Mr & Mrs Roberts	<p>" .. lack of openness in sharing with the public true accurate representations of the visual impact on the seascape around S.Stack ... We believe this was very deliberate as Morlais did not wish to raise public concern."</p>	<p>These points are strongly refuted. The proper assessments, including visualisations, have been carried out in accordance with relevant guidance and have been agreed with NRW and IoACC.</p>

	“The cliff is fully visible from our business and the coastal path and development like this should simply not be permitted.”	Given the distance - 1.1km - this is not accepted.
<u>8.</u> <u>IoACC</u>	No further comments	
<u>9. MCA</u>		Menter Môn welcomes MCA’s reiteration that the NRAA was conducted in accordance with MCA published guidance. The MCA has accepted a number of other points in the SoCG and in the RT sessions. It is noted that these matters will be considered further at the ML stage but the extent of the agreement already reached with the MCA is important. In the navigation RT it was said by Mr Salter that he was 99% in agreement with what Menter Môn had said.