



Awel y Môr Offshore Wind Farm

Planning Statement

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Glossary of terms

TERM	DEFINITION
AyM OWF	The Awel y Môr Offshore Wind Farm
Development Consent Order	An order made under the Planning Act 2008 granting development consent for a Nationally Significant Infrastructure Project (NSIP) from the Secretary of State (SoS) for Business, Energy and Industrial Strategy (BEIS).
EIA	Environmental Impact Assessment
ES	Environmental Statement (the documents that collate the processes and results of the EIA).
Landfall	The landfall denotes the location where the offshore export cables are brought ashore and jointed to the onshore export cables in Transition Joint Bays (TJBs).
Maximum Design Scenario (MDS)	The maximum design parameters of the combined project assets that result in the greatest potential for change in relation to each impact assessed.
Mitigation	Mitigation measures are commitments made to reduce and/ or eliminate the potential for significant effects to arise as a result of the project. Mitigation measures can be embedded (part of the project design) or applied to the development of the project to manage or reduce impacts.
Offshore Export Cable Corridor (ECC)	The area(s) where the offshore export cables will be located.
Onshore Export Cable Corridor (Onshore ECC)	The proposed cable route which represents a corridor, typically 40 m to 60 m wide, within which the cables will be installed and cable trenching,

TERM	DEFINITION
	haul road and stockpiling areas associated with cable construction, will be located.
Onshore Substation (OnSS)	Where the power supplied from the wind farm is adjusted (including voltage, power quality and power factor as required) to meet the UK System-Operator Transmission-Owner Code (STC) for supply to the National Grid substation.
PEIR	Preliminary Environmental Information Report. The PEIR is written in the style of a draft Environmental Statement (ES) and forms the basis of statutory consultation. Following that consultation, the PEIR documentation will be updated into the final ES that will accompany the applications for the Development Consent Order (DCO) and Marine Licence(s).
OnSS Access zone	The area which will contain the final OnSS access route (both construction and operational) – The route of the construction and operational access will be confirmed following detailed design (post consent)
OnSS Construction Area	The area within which the substation construction would take place. This area incorporated both the Substation Footprint and areas of cut and fill required to construct the substation platform.
OnSS Footprint	The footprint for the substation which would incorporate either AIS or GIS technology.
The Applicant	AyM Offshore Wind Farm Limited.

Abbreviations and acronyms

TERM	DEFINITION
AIS	Air Insulated Switchgear
AyM	Awel y Môr Offshore Wind Farm
CoCP	Code of Construction Practice
CPAT	Clwyd-Powys Archaeological Trust
CRM	Collision Risk Modelling
DCC	Denbighshire County Council
DCO	Development Consent Order
ECC	Export Cable Corridor
EIA	Environmental Impact Assessment
ES	Environmental Statement
GIS	Gas Insulated Switchgear
HDD	Horizontal Directional Drilling
MDS	Maximum Design Scenario
NPS	National Policy Statement
NSIP	Nationally Significant Infrastructure Project
OnSS	Onshore Substation
PEIR	Preliminary Environmental Information Report
SABP	St Asaph Business Park

Units

UNIT	DEFINITION
km	Kilometre
m	Metre

Planning Statement

Executive summary

This Planning Statement has been prepared on behalf of Awel y Môr Offshore Wind Farm Limited ('the Applicant') and accompanies an application for a Development Consent Order (DCO). The application is required to construct and operate an offshore wind farm with a capacity of more than 350 MW adjacent to the existing Gwynt y Môr offshore wind farm.

Awel y Môr (AyM) comprises an offshore array of between 34 and 50 wind turbine generators (WTGs) which are connected to the coast via offshore export cables, making landfall near Prestatyn, before an onward onshore cable connection to the substation at Bodelwyddan, west of the St Asaph Business Park. The project will export electricity generated to the existing electricity network through the National Grid substation at Bodelwyddan.

AyM aims to secure a consent envelope, including a range of large and smaller WTGs, from which a single design will be developed post-consent. The final details of all infrastructure to be installed, including WTGs and onshore substation technology, will be confirmed following consent and prior to deployment. This flexibility is supported in the National Policy Statements.

Development of AyM will support those objectives within the extant and draft National Policy Statements, including the UK national targets to achieve 40 GW of offshore wind by 2030; a figure which was revised upward to 50 GW by 2030 in the April 2022 UK Government Energy Security Statement. With regards local policies, the project supports those objectives within the Denbighshire Local Development Plan 2013 (LDP), and the Anglesey and Gwynedd Joint Local Development Plan (2017) (JLDP), aimed at promoting the development of renewable or low carbon energy technologies.

AyM will also meet the well-being goals set out in the Well-being of Future Generations Act (2015), not least in terms of Goal 1, A Prosperous Wales, in creating *"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."* (Well-Being of Future Generations Act, Welsh Government, 2015).

It is acknowledged that there are unavoidable (but reversible) significant seascape and landscape effects predicted, with associated unavoidable visual effects on the Llandudno pier and a related short-term adverse effect on the tourism economy.

There are also anticipated potentially significant, temporary adverse impacts on hedgerows and coastal dune invertebrates at a county level in the short term, until the proposed mitigation and is sufficiently mature becomes established.

All predicted significant effects have been mitigated as far as practicable. When taking the project as a whole it is not considered that there are any adverse effects, individually or cumulatively, that would be sufficient to outweigh the substantial benefits and need case of AyM.

The proposed AyM project would make a significant contribution to the achievement of the Welsh and broader UK national renewable energy targets, and to the UK's contribution to global efforts to reduce the effects of climate change. The proposed AyM project has the potential to make a substantial contribution to UK 2030 energy targets, providing in the region of 1.4% of the 40 GW target. Moreover, the proposed AyM project would have a direct positive benefit by providing a secure renewable energy supply for approximately 500,000 UK homes. The proposed project would reduce carbon emissions and contribute to the Welsh and UK economy by providing socio-economic and other benefits that should be taken into account under the NPS and other Government policies and legislation. The AyM project will also make an important contribution to energy security, seen as a critical driver for UK renewable energy.

For all of the above reasons, the Secretary of State can conclude that the proposed AyM project would bring significant benefits under a range of national, international and local policy considerations, would be in accordance with relevant NPSs and legislation, and:

- Would not lead to the UK being in breach of any of its international obligations;
- Can be satisfied that the benefits of the proposed development outweigh any adverse impacts;
- That there is no condition prescribed for deciding the application otherwise than in accordance with the relevant extant NPSs; and
- That under the terms of S104 PA2008, the development should therefore be consented.

Datganiad Cynllunio

Crynodeb gweithredol

Mae'r Datganiad Cynllunio hwn wedi cael ei baratoi ar ran Awel y Môr Offshore Wind Farm Ltd ('y Ceisydd') ac mae'n cyd-fynd â chais am Orchymyn Cydsyniad Datblygu (DCO). Mae angen y cais er mwyn adeiladu a gweithredu fferm wynt ar y môr sydd â mwy na 350 MW o gapasiti wrth ymyl y fferm wynt ar y môr bresennol, sef Gwynt y Môr.

Mae Awel y Môr yn cynnwys arâe rhwng 34 a 50 o eneraduron tyrbinau gwynt ar y môr wedi'u cysylltu â'r arfordir drwy geblau allforio ar y môr, gan gyrraedd y lan ger Prestatyn, cyn i gebl ar y tir fynd ymlaen i'r is-orsaf ym Modelwyddan, i'r gorllewin o Barc Busnes Llanellwyr. Bydd y prosiect yn allforio trydan a gynhyrchir i'r rhwydwaith trydan presennol drwy is-orsaf y Grid Cenedlaethol ym Modelwyddan.

Nod Awel y Môr yw sicrhau amlen ganiatâd, sy'n cynnwys amrywiaeth o eneraduron tyrbinau gwynt mawr a llai o faint, a bydd un dyluniad yn cael ei ddatblygu ar ôl cael caniatâd. Bydd manylion terfynol yr holl seilwaith a fydd yn cael ei osod, gan gynnwys generaduron tyrbinau gwynt a thechnoleg is-orsaf ar y tir, yn cael eu cadarnhau ar ôl cael caniatâd a chyn eu defnyddio. Caiff yr hyblygrwydd hwn ei ategu yn y Datganiadau Polisi Cenedlaethol.

Bydd datblygu Awel y Môr yn cefnogi'r amcanion sydd yn y Datganiadau Polisi Cenedlaethol presennol a drafft, gan gynnwys targedau cenedlaethol y DU i gael 40 GW o ynni gwynt ar y môr erbyn 2030. O ran polisiâu lleol, mae'r prosiect yn cefnogi'r amcanion sydd yng Nghynllun Datblygu Lleol Sir Ddinbych 2013 (CDLI), a Chynllun Datblygu Lleol ar y Cyd Ynys Môn a Gwynedd (2017), sydd â'r nod o hyrwyddo datblygiad technolegau ynni adnewyddadwy neu garbon isel.

Bydd Awel y Môr hefyd yn cyflawni'r nodau llesiant sydd yn Neddf Llesiant Cenedlaethau'r Dyfodol (2015), nid yn unig o ran Nod 1, Cymru Lewyrchus, wrth greu *"cymdeithas arloesol, gynhyrchiol, carbon isel sy'n cydnabod y terfynau sydd ar yr amgylchedd byd-eang ac sydd, o ganlyniad, yn defnyddio adnoddau mewn modd effeithlon a chymesur (gan gynnwys gweithredu ar newid yn yr hinsawdd); ac sy'n datblygu poblogaeth fedrus ac addysgedig mewn economi sy'n cynhyrchu cyfoeth ac yn cynnig cyfleoedd cyflogaeth, gan ganiatáu i bobl fanteisio ar y cyfoeth a gynhyrchir drwy gael gafael ar waith addas"* (Deddf Llesiant Cenedlaethau'r Dyfodol, Llywodraeth Cymru, 2015)

Cydnabyddir y rhagwelir effeithiau sylweddol na ellir eu hosgoi (ond y gellir eu gwrthdroi) ar forwedd a thirwedd, gyda'r effeithiau gweledol nad oes modd eu

hosgoi ar bier Llandudno ac effaith niweidiol byrdymor a chysylltiedig ar yr economi dwristiaeth.

Rhagwelir hefyd y bydd effeithiau niweidiol sylweddol, dros dro ar wrychoedd a chreaduriaid di-asgwrn-cefn twyni arfordirol ar lefel sirol yn y tymor byr, nes bydd y mesurau lliniaru arfaethedig a'r rhai sy'n ddigon aeddfed yn cael eu sefydlu.

Mae'r holl effeithiau sylweddol a ragwelir wedi cael eu lliniaru cymaint ag y bo modd. Wrth ystyried y prosiect yn ei gyfanrwydd, ni chredir bod unrhyw effeithiau niweidiol, yn unigol neu gyda'i gilydd, a fyddai'n ddigon i wrthbwysu'r manteision sylweddol a'r angen am Awel y Môr.

Byddai'r prosiect Awel y Môr arfaethedig yn gwneud cyfraniad sylweddol at gyflawni targedau ynni adnewyddadwy cenedlaethol Cymru ac ehangach y DU, ac at gyfraniad y DU at ymdrechion byd-eang i leihau effeithiau newid yn yr hinsawdd. Mae gan brosiect arfaethedig Awel y Môr y potensial i wneud cyfraniad sylweddol at dargedau ynni 2030 y DU, gan ddarparu tua 1.4% o'r targed 40 GW. At hynny, byddai prosiect arfaethedig Awel y Môr yn cael budd cadarnhaol uniongyrchol drwy ddarparu cyflenwad ynni adnewyddadwy sicr ar gyfer tua 500,000 o gartrefi yn y DU. Byddai'r prosiect arfaethedig yn lleihau allyriadau carbon ac yn cyfrannu at economi Cymru a'r DU drwy ddarparu manteision economaidd-gymdeithasol a manteision eraill y dylid eu hystyried o dan y Datganiad Polisi Cenedlaethol a pholisïau a deddfwriaeth arall y Llywodraeth. Bydd prosiect Awel y Môr hefyd yn gwneud cyfraniad pwysig at ddiogelwch ynni, sy'n cael ei ystyried yn sbardun hollbwysig ar gyfer ynni adnewyddadwy yn y DU.

Am yr holl resymau uchod, gall yr Ysgrifennydd Gwladol ddod i'r casgliad y byddai prosiect arfaethedig Awel y Môr yn dod â buddion sylweddol o dan amrywiaeth o ystyriaethau polisi cenedlaethol, rhyngwladol a lleol, yn unol â deddfwriaeth a Datganiadau Polisi Cenedlaethol perthnasol, ac:

- Na fyddai'n golygu bod y DU yn torri unrhyw un o'i rhwymedigaethau rhyngwladol;
- Gall gael ei fodloni bod manteision y datblygiad arfaethedig yn gwrthbwysu unrhyw effeithiau niweidiol;
- Nad oes amod wedi'i bennu ar gyfer penderfynu ar y cais ac eithrio yn unol â'r Datganiadau Polisi Cenedlaethol perthnasol sy'n bodoli; ac

Felly, o dan delerau A104 PA2008, dylid caniatáu'r datblygiad.

1 Introduction

1.1 This Document

- 1 This Planning Statement has been prepared by and on behalf of Awel y Môr offshore wind farm limited (AyMOWFL) (the Applicant). The Planning Statement is submitted as part of the Development Consent Order ('DCO') application.
- 2 This Planning Statement is one of a series of documents that accompanies the application to the Secretary of State for a DCO ('the Application') submitted in accordance with Section 37 of the Planning Act 2008 and Regulations 5 and 6 of the Infrastructure Planning (Application: Prescribed Forms and Procedures) Regulations 2009 (the 'APFP Regulations'). The APFP Regulations do not require a Planning Statement to support applications for Development Consent; however, in order to assist the Secretary of State to determine the application, it is considered helpful to bring all the principal matters together into one statement in order to consider them in the context of relevant policy.
- 3 The proposed Awel y Môr (AyM) project has been subject to formal Environmental Impact Assessment (EIA) procedures, the outcomes of which have been reported in the Environmental Statement (ES) that accompanies the DCO application. The proposed AyM project is also subject to Habitats Regulations Assessment (HRA) (see Report to Inform the Appropriate Assessment (application ref: 5.2)) to determine its potential effects on European Designated Sites and Species.
- 4 Aspects concerning the need for the project (Section 5 of this document), the site selection process (Section 6.4 of this document), and alternative designs and technologies considered by the Applicant during the design-development process are explained fully in ES Chapter 4 Site Selection and Alternatives (application ref: 6.1.4), and presented in summary form within this Planning Statement. The full legislative and policy context relating to renewable energy within which the proposed AyM project would be progressed is presented in ES Chapter 3 Policy and Legislation (application ref: 6.1.3).

- 5 The outcomes of the EIA and Report to Inform Appropriate Assessment have informed the content of this Planning Statement, specifically in relation to assisting the determination of accordance of the proposed AyM project with the relevant National Policy Statements (NPSs) and Welsh national policy.
- 6 This Planning Statement is structured as follows:
- ▲ Section 2: Background/context
 - ▲ Section 3: Project description and location
 - This section summarises the project description (as set out in detail at Volumes 2 and 3, Chapter 1: Project Description, of the Environmental Statement (ES) application refs: 6.2.1 and 6.3.1), describing all of the main onshore and offshore project components necessary to deliver AyM and connect the project to the National Grid Transmission System. This section of the Planning Statement does not replace Volumes 2 and 3, Chapter 1: Project Description, of the ES, which remain the main reference point for the detailed project description.
 - This section also confirms the location and spatial extent of the onshore and offshore project components.
 - ▲ Section 4: Relevant legislation and decision-making framework
 - This section confirms the legislation and policy context for AyM, where it is considered to be relevant to the determination of the application.
 - ▲ Section 5: The Need for the scheme
 - This section of the Planning Statement sets out the need case for AyM, in the context of national, European and international policy and legislation.
 - ▲ Section 6: Planning assessment
 - This section considers the relationship of AyM with the topic-specific planning policies set out in National Policy Statements EN-1, EN-3 and EN-5, and relevant Welsh policy. Consideration of other planning policy including, where relevant, the NPPF and local planning policy (as identified and confirmed in Section 4), are described under 'Other Policy' for each topic.

- 7 At the time of writing this Planning Statement, the National Policy Statements (NPSs) are undergoing revision following consultation in later 2021. This document refers primarily to the extant NPSs, as these remain the primary policy tests of relevance. The draft NPSs are however referred to in this Planning Statement in specific cases where the contents are pertinent to the AyM project. Each technical ES Chapter also provides a comprehensive review of draft NPS provisions of relevance to the technical topic.

2 Background and context for development

2.1 The Applicant

- 8 The Project is being developed under a joint venture arrangement, through the company AyM Offshore Wind Farm Ltd (the 'Applicant'). The project partners are RWE (60%), Stadtwerke München (30%) and Siemens Financial Services (10%). RWE is leading the development of the project on behalf of the project partners.
- 9 RWE is already the largest renewable energy operator in Wales, generating one third of all Wales' renewable electricity. As a leading European energy company, RWE has the goal of making a significant contribution towards Welsh Government targets to generate 70% of electricity needs from renewable energy sources by 2030 and to reach net-zero by 2050.
- 10 RWE's portfolio includes involvement renewable energy capacity of 957 MW in Wales. RWE operates three offshore wind farms off the coast of North Wales: GyM (576 MW), Rhyl Flats (90 MW) and the UK's first large scale Offshore Wind Farm which RWE also built - North Hoyle (60 MW).
- 11 As a responsible developer, RWE has also looked to upskill the future generation through creation of its Wind Turbine Apprenticeship Programme in partnership with Grwp Llandrillo Menai, which officially opened in 2012. The course has trained nearly 30 new apprentices producing high quality technicians who are primarily deployed on offshore and onshore wind farms, both locally and across the UK, with Coleg Llandrillo acting as UK training hub.

2.2 The 2017 Extensions Round

- 12 In February 2017, The Crown Estate launched an opportunity for existing offshore wind farms to apply for project extensions. The Crown Estate defined application criteria for offshore wind project extensions, which include the need to share a boundary with the existing wind farm which it is intended to extend. The process, and how the AyM project has sought to fulfil TCE's prescribed criteria, is presented in section 4.7 of the Site Selection and Alternatives Chapter (application ref: 6.1.4).
- 13 The 2017 Extension Round criteria, which were also used to inform a strategic plan level HRA and associated Cable Route Protocol, therefore, limit the level of flexibility the Applicant can have with regard to the spatial configuration of extension projects. The opportunity to extend the wind farm and realise the recognised wind energy potential at the site, exists only to the west of the operating Gwynt y Môr (GyM) wind farm. Notwithstanding this the Applicant has sought to avoid sensitive areas and features wherever practicable, as evidenced by the Applicant's avoidance of the Constable Bank feature following the scoping phase of consultation (further detail is presented in the Site Selection and Alternatives chapter (application ref: 6.1.4)).

3 Application location and Project Description

3.1 Project Location

- 14 AyM is a proposed sister project to the operational GyM off the north-east coast of Wales. GyM consists of 160 WTGs and supplies electricity to approximately 400,000 households annually. AyM is anticipated to provide clean electricity to up to a further 500,000 homes, and make a substantial contribution to meeting Wales' renewable energy targets.
- 15 The AyM array area (i.e., the area in which the turbines will be located) is approximately 78 km², having been refined down from 107 km² (a reduction of 25%) in response to feedback in relation to seascape impacts raised during the scoping and statutory consultation period required under s42 of the Planning Act 2008 (PA2008) (as part of the iterative EIA process). At its closest point, the array area is proposed to be located approximately 10.5km off the North Wales coast at Llandudno. The array area is adjacent to the existing GyM, which has a similar physical environment.
- 16 The AyM offshore Export Cable Corridor (offshore ECC) extends from the south-western to south-eastern boundary of the AyM array area in a south-easterly direction to Frith beach on the North Wales coast. The offshore ECC will be approximately 21 km in length.
- 17 The onshore ECC extends from the landfall, between Rhyl and Prestatyn, through primarily agricultural land to the onshore substation (OnSS) west of St Asaph's Business Park (SABP), before then connecting to the National Grid substation at Bodelwyddan (south of SABP). A number of features, such as the Rhyl Golf Club, the River Clwyd, woodlands, and the A55 are subject to Horizontal Directional Drilling (HDD).

3.2 Site description

- 18 The full Project Description is provided in Volume 2, Chapter 1 Project Description (Offshore) of the ES and Volume 3, Chapter 1 Project Description (Onshore) of the ES. These Chapters provide a detailed explanation of all onshore and offshore project components, and matters relevant to the construction, operation and maintenance (O&M), and decommissioning of AyM.
- 19 The Planning Statement provides a high-level summary of the project components, with full detail presented within the offshore and onshore project description Chapters of the ES (application ref: 6.2.1 and 6.3.1 respectively).
- 20 AyM will have a maximum of 50 turbines, a reduction of >50% from the 107 turbines proposed during the EIA scoping phase; this reduction was made in direct response to stakeholder feedback. The ultimate capacity of the project will be determined based on available technology as constrained by the project envelope and maximum design scenarios presented in the Offshore Project Description and Onshore Project Description and assessed in the ES.
- 21 The key offshore components of AyM for which consent is sought include:
- WTGs and their associated foundations;
 - Up to two Offshore Substations (OSS) (if required) and associated foundations;
 - A Meteorological Mast (if required) and its associated foundation;
 - Inter-array subsea cables between the WTGs;
 - Subsea export cables between the OWF and the shore;
 - A further cable inter-linking AyM and GyM
 - Mattresses or other protective substrate associated with cable crossings (if required); and
 - Scour protection around foundations and on array and export cables (if required).
- 22 The key onshore components of AyM comprise the following:

- Landfall site with associated transition joint bays (TJBs) to connect the offshore and onshore cables;
- Onshore underground cables with jointing bays situated at intervals along the onshore cable route as necessary;
- Temporary construction areas;
- Onshore substation to the west of SABP, in proximity to the grid connection location at Bodelwyddan; and
- An onward connection to the National Grid Transmission Network at the existing National Grid Bodelwyddan Substation.

3.2.1 Construction and Operation

- 23 It is likely that the AyM components will be fabricated at a number of manufacturing sites across Europe or elsewhere, to be determined as part of a competitive tendering process upon award of consent and the completion by the Applicant of a Final Investment Decision (FID). A construction base (port facility) may be used to stockpile some components, such as foundations and turbines, before delivery to the AyM array area for installation. Other components, such as prefabricated offshore substation units, may be delivered directly to the AyM array area when required. An onshore operations and maintenance base may be provided to support the operating wind farm after construction. This onshore operations and maintenance base, alongside the construction port, is not included in this application and any consent will be secured if required at a later date when the location and requirements for this are known.
- 24 The electricity generated from AyM will be transmitted via buried High Voltage Alternating Current (HVAC) cables. From the area via subsea cables to the proposed landfall at Frith, where it will pass underground to the TJBs and on via onshore cables which will connect the wind farm to the OnSS west of SABP and onward to the existing National Grid 400 kV substation at Bodelwyddan. The onshore ECC will be approximately 12 km in length.

3.3 Site selection

- 25 The site selection and consideration of alternatives has been a sequential process involving development of the project design alongside understanding the potential locations for infrastructure and the detail of those areas, while remaining compliant with TCE leasing requirements. The following approach to site selection has also allowed the findings of the environmental assessments to guide the evolution of the proposed AyM project design, and has allowed the plans for the onshore development area to be modified to avoid, reduce or mitigate the potentially adverse impacts as far as practicable. As noted in paragraphs 15 and 20 design mitigation has included a reduction in excess of 25% of the developable area, and a further reduction in excess of 50% in the number of turbines proposed for EIA scoping.
- 26 ES Chapter 4 (application ref: 6.1.4) and accompanying annexes detail the relevant stages of the site selection process in detail.

3.4 Evolution and design of the project

- 27 The location of the AyM windfarm site has evolved through a multi-stage process, combining engineering constraints, environmental constraints, and iterative refinement through consultation identified using a seven-stage process, as illustrated in Figure 1. The project is now at Stage 8, having made a number of design changes in response to feedback and design refinement, and frozen the proposed design for the purposes of the final application.
- 28 Following Stage 5 (Scoping), and prior to receipt of statutory consultation feedback, the Applicant refined the project design to minimise impacts on a number of receptor groups. This includes a reduction in the spatial footprint and number of WTGs to minimise impacts on visual receptors, and the avoidance of subsea features such as the Constable Bank to minimise impacts associated with cable installation and protection.

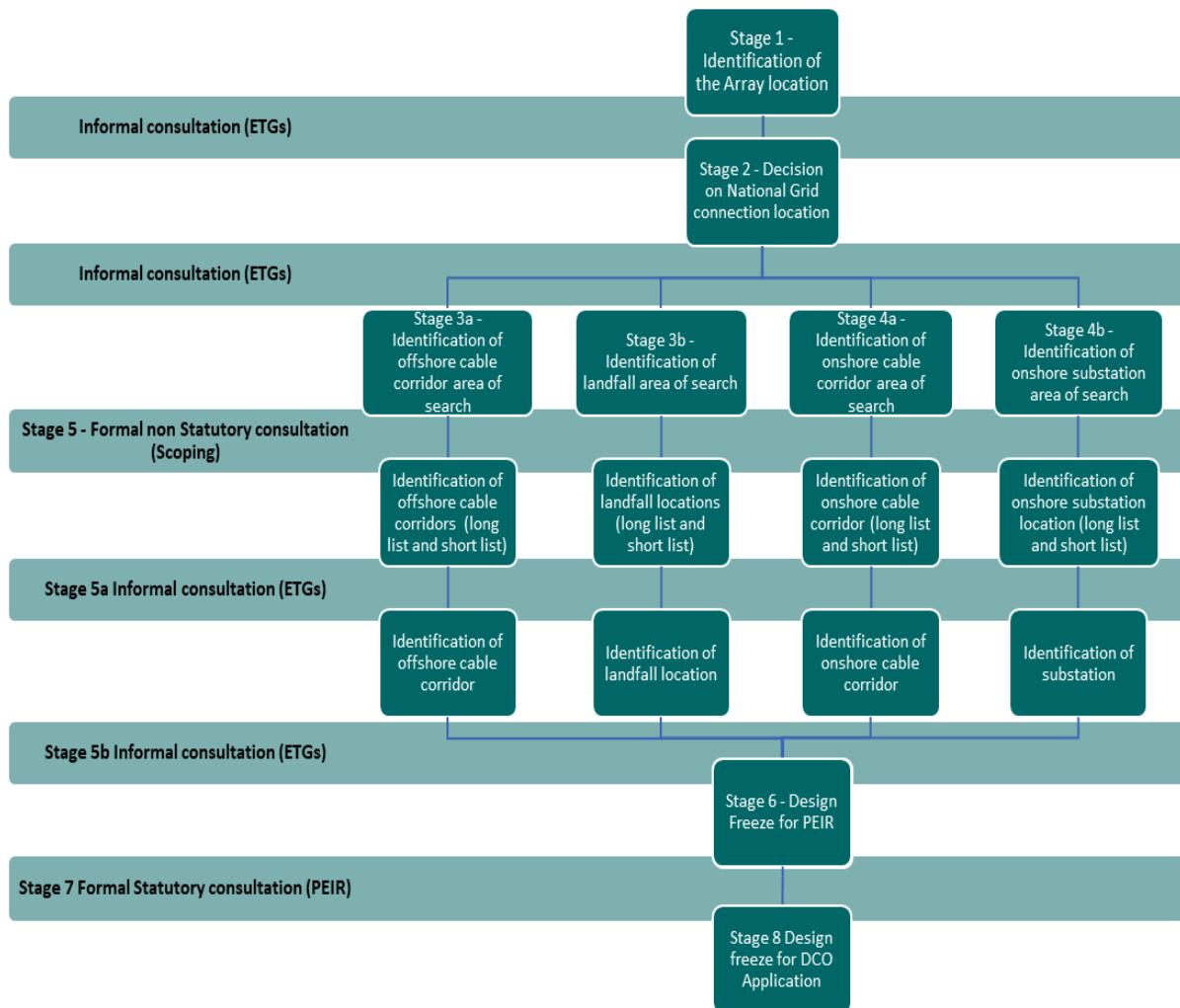


Figure 1 AyM site selection process

29 Following statutory consultation on the PEIR, a review of consultation feedback and additional data and information available was undertaken, including but not limited to:

- Ongoing EIA studies;
- Community and landowner feedback;
- Ecological designations and recreational assets;
- Results from the priority programme of archaeological geophysical survey;
- National Grid engagement;
- Landscaping design proposals; and

- ▲ Project design parameter refinements.

30 This information has helped to refine the project design further (for details see ES Chapter 4 Site Selection and Assessment of Alternatives). In particular, following feedback to the PEIR, the Applicant investigated the potential to refine the proposed AyM windfarm site area to reduce the magnitude of effect on onshore visual receptors and thus the cumulative effect with GyM, and other regional offshore wind farms. The revised design represents a reduction in the western geographic extent of the windfarm site. The change resulted in:

- ▲ Reduced lateral spread of the proposed AyM windfarm site; and
- ▲ Increased offshore distance of the windfarm site for onshore visual receptors within the Isle of Anglesey locality due to an increase in distance between the AONB and the westerly turbines (see ES Chapter 10 Seascape, Landscape and Visual Impact Assessment (application ref: 6.2.10) for further details).

31

4 Relevant Legislation and Policy

4.1 Introduction

- 32 This section outlines the legislative and policy framework for determining applications for Development Consent under the PA2008, the matters to which the Secretary of State must have regard and the weight which should be ascribed to those matters in the decision-making process.

4.2 International obligations on climate change and National climate change and energy legislation

- 33 Volume 1, Chapter 2 (Policy) of the ES (Document 6.1.2) references international and national climate change legislation, and whilst this wider need is not reproduced in full in this Planning Statement, key legislation is described below.

4.2.1 International obligations

- 34 The United Nations Convention on Climate Change supreme decision-making body is termed the Conference of Parties (COP) which reviews the implementation of the Convention and any other legal instruments that the COP adopts and takes decisions necessary to promote the effective implementation of the Convention, including institutional and administrative arrangements. In 2021, the COP was held in Glasgow. The conference negotiated a global agreement with the key goal of limiting increases of global temperatures to “well below 2°C compared to pre-industrial levels”. The parties also agreed to “pursue efforts to” limit the temperature increase to 1.5°C. This was a development of the Paris Agreement for a binding and universal agreement on climate from all the parties. The agreement was reached by 196 parties, seeking to prevent a “climate catastrophe” by keeping temperature rises within 1.5°C.

4.3 Legislation

4.3.1 Requirement for Development Consent

- 35 Development consent is required under the provisions of PA2008 or development that is, or forms part of, a Nationally Significant Infrastructure Project (NSIP). PA2008 sets out thresholds above which certain types of infrastructure development are considered to be NSIPs and therefore require a DCO.
- 36 The PA2008 sets out that for offshore generating station and transmission developments in waters in or adjacent to Wales, the NSIP threshold is a generating capacity of over 350MW.
- 37 As part of the DCO authorised works for the proposed AyM project, the offshore wind farm forms the generating station connected to the offshore and onshore cable infrastructure. The generating station, comprising offshore WTGs, is subject to a Rochdale Envelope approach wherein the maximum capacity influences the parameters for assessment but does not form a critical part of the assessment; the technological assumptions regarding the parameters and capacity of indicative WTGs are provided in Annex 8.1.1 and provide confirmation that the proposed 34 largest WTGs or 50 smaller WTGs have a cumulative installed capacity of more than 350 MW. Further to this the Crown Estate assumptions for an AfL are such that the proposed lease area will be required to generate more than 350 MW using the standard 5 MW/ Km² threshold. The proposed AyM project is therefore an offshore generating NSIP. The site of the offshore wind farm is within the UK Renewable Energy Zone. The infrastructure as detailed in paragraph 21 *et seq* will be required.
- 38 Since the offshore generating station constitutes an NSIP, development consent is required for the project under S31 of PA2008 and as such a DCO application, supported by an ES, is submitted by the Applicant in respect of the proposed project.
- 39 Section 104 of PA2008 makes clear that such projects must be determined in accordance with any relevant NPS, unless certain exceptions apply:

"104 Decisions in cases where national policy statement has effect

....

(3) The [Secretary of State] must decide the application in accordance with any relevant national policy statement, except to the extent that one or more of subsections (4) to (8) applies.

(4) This subsection applies if the [Secretary of State] is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the United Kingdom being in breach of any of its international obligations.

(5) This subsection applies if the [Secretary of State] is satisfied that deciding the application in accordance with any relevant national policy statement would lead to the [Secretary of State] being in breach of any duty imposed on the [Secretary of State] by or under any enactment.

(6) This subsection applies if the [Secretary of State] is satisfied that deciding the application in accordance with any relevant national policy statement would be unlawful by virtue of any enactment. (7) This subsection applies if the [Secretary of State] is satisfied that the adverse impact of the proposed development would outweigh its benefits.

(8) This subsection applies if the [Secretary of State] is satisfied that any condition prescribed for deciding an application otherwise than in accordance with a national policy statement is met.

(9) For the avoidance of doubt, the fact that any relevant national policy statement identifies a location as suitable (or potentially suitable) for a particular description of development does not prevent one or more of subsections (4) to (8) from applying."

- 40 PA2008 in S104 also makes clear that in determining an NSIP the Secretary of State must take into account any relevant NPS, the appropriate Marine Policy Statement (MPS), any Local Impact Report, any matters prescribed in relation to the development and any matters the Secretary of State considers important and relevant.

- 41 The key test is therefore to assess on balance, whether the application is in accordance with the relevant NPSs and whether any specified exceptions apply. This may include considering whether the policies set out in the NPSs for delivery of renewable energy are outweighed by any adverse impacts that have been identified noting the presumption is in favour of applications which accord with any relevant NPSs. This is not to the exclusion of the MPS and other national policies, in particular in the context of Welsh policies, which are considered in sections 4.4, 4.5, and within the technical assessment sections (section 6) following consideration of the NPS tests.
- 42 As described below, this Planning Statement sets out the accordance of all elements of the project with the relevant NPS policies and other policy and legislative requirements. At the time of drafting this Planning Statement, the Energy NPSs are subject to consultation and revision, following submission of draft NPSs for consultation in November 2021. The draft NPS (draft EN-1, paragraph 1.6.2) specifically notes that *for any application accepted for examination before designation of the reviewed statements, the 2011 suite of NPSs should have effect in accordance with the terms of those NPS*. It further notes that *[T]he 2021 amendments will therefore have effect only in relation to those applications for development consent accepted for examination after the designation of those amendments*. Paragraph 1.6.3 then goes on to note that *any emerging draft NPSs (or those designated but not having effect) are potentially capable of being important and relevant considerations in the decision-making process. The extent to which they are relevant is a matter for the relevant Secretary of State to consider within the framework of the Planning Act and with regard to the specific circumstances of each development consent order application*. In several cases, notably with the revised ambitious targets for renewable energy, the draft NPSs are at the time of drafting this Planning Statement important and relevant considerations in the decision-making process.

- 43 Due to the uncertainty in timing and final content of the revised NPSs, this Planning Statement makes primary reference to the extant NPSs of relevance, but in acknowledgement that the draft NPSs may in some cases, as noted previously, be important and relevant policy tests for the proposed AyM project, each technical ES Chapter presents the draft NPS text, where it materially differs from the extant NPSs, and notes where the AyM project has met the necessary policy tests.
- 44 A full list of documents submitted in support of the DCO is provided in Volume 1, Chapter 1, Introduction (application ref: 6.1.1). The documents submitted include a draft DCO, and documentation identifying the outline conditions that may be applied to the project Marine Licences, as required under the Marine and Coastal Access Act 2009 (Outline approach to Marine Licencing, Annex 1 to Consents and Licences Required Under Other Legislation; application ref: 5.4.1).
- 45 In addition, the draft DCO includes provisions to allow construction and operation of the proposed AyM project, and implementation of landscape and ecological mitigation, using *inter alia*:
- ▲ Powers to compulsorily acquire land or rights;
 - ▲ Powers to remove and reinstate important hedgerows;
 - ▲ Powers to undertake works in streets;
 - ▲ Powers to create or alter accesses to highways;
 - ▲ Powers to create drainage; and
 - ▲ Powers to divert or stop public rights of way.

4.3.2 Well-being of Future Generations (Wales) Act 2015

- 46 The Well-being of Future Generations (Wales) Act is about improving the social, economic, environmental and cultural well-being of Wales.
- 47 The Act gives a legally-binding common purpose – the seven well-being goals – for national government, local government, local health boards and other specified public bodies. It details the ways in which specified public bodies must work, and work together to improve the well-being of Wales.
- 48 The seven well-being goals are:

- A prosperous Wales;
 - A resilient Wales;
 - A more equal Wales;
 - A healthier Wales;
 - A Wales of cohesive communities;
 - A Wales of vibrant culture and thriving Welsh language;
 - A globally responsible Wales.
- 49 The AyM project has sought to apply the well-being goals wherever practicable, including consideration of the Welsh language, and ensuring there is no impediment to the resilient Wales goal being reached, in the context of ecological resilience. Further to this, the investment associated with AyM is anticipated to contribute to a prosperous Wales through job creation, and creation of opportunities for the supply chain in Wales.

4.4 Policy and Guidance

- 50 Whilst the NPSs are the primary policy framework for the assessment and determination of NSIPs, other planning policy may be relevant where it does not conflict with the NPSs.
- 51 The extent to which other planning policy including Future Wales, the Wellbeing of Future Generations (Wales) Act 2015, Planning Policy Wales (PPW-11, February 2021), marine policy documents and local planning policy has been considered (is set out under 'Other Policy' for each topic in Section 6 of this Planning Statement.

4.4.1 Future Wales - The National Plan 2040

- 52 Future Wales – the National Plan 2040 (hereafter 'Future Wales') is the Welsh national development framework, setting the direction for development in Wales to 2040. It is a development plan with a strategy for addressing key national priorities through the planning system, including sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems and improving the health and well-being of our communities.

- 53 The Plan notes that Wales faces a climate emergency which is actively changing the Welsh environment and directly affecting communities. It further notes the ecological emergency, where the behaviours and decisions of the human race are causing harm to the resilience of ecosystems and species nationally and internationally.
- 54 In the context of the climate emergency, and renewable energy, Future Wales notes that Wales can become a world leader in renewable energy technologies. Welsh wind and tidal resources, support for both large and community scaled projects and commitment to ensuring the planning system provides a strong lead for renewable energy development, is recognised in Future Wales as meaning Wales is well-placed to support the renewable sector, attract new investment and reduce carbon emissions.
- 55 Policies 17 and 18 set out Future Wales' approach to renewable energy generation across Wales, with the latter noting that renewable energy projects (onshore Developments of National Significance) will be permitted where unacceptable adverse effects on a number of visual, human, and ecological receptors can be avoided. With regards offshore projects, Future Wales notes in Policy 24 that onshore developments associated with offshore renewable energy projects will be supported in principle. In parallel with these renewable energy policies, Future Wales commits to ambitious renewable energy targets:
- ▲ For 70% of electricity consumption to be generated from renewable energy by 2030.
 - ▲ For one gigawatt of renewable energy capacity to be locally owned by 2030.
 - ▲ For new renewable energy projects to have at least an element of local ownership from 2020.

4.4.2 Planning Policy Wales (Edition 11, February 2021) and associated Technical Advice Notes

- 56 PPW 11 sets out the land use planning policies of the Welsh Government and is supplemented by 24 topic-based Technical Advice Notes (TANs). TANs provide the guidance associated with Welsh Government's policies on various planning issues that shape the preparation of development plans. The principles and objectives of TANs provide the overarching national guidance for specific individual environmental topics.
- 57 Both the PPW and TANs are material considerations in determining planning applications in Wales. These policy and guidance documents are important and relevant under the PA 2008 regime. The provisions of the PPW and TANs which are of potential relevance to the AyM application are set out below.
- 58 PPW Chapter 2 (paragraph 2.8) highlights that *all planning policies, proposals and decisions must seek to promote sustainable development and support the well-being of people and communities across Wales*. It is noted that, as required by the Well-being of Future Generations Act (2015), proposals should seek to maximise the social, economic, environmental and cultural benefits, while considering the potential impacts.
- 59 PPW highlights in paragraph 12 of the introduction that the planning system provides for a presumption in favour of sustainable development to ensure that social, economic and environmental issues are balanced and integrated.
- 60 PPW outlines the objectives for the planning system which reflect the Welsh Government's view for sustainable development and the outcomes they seek to deliver across Wales. PPW notes that in assessing the sustainable benefits of development, planning authorities should ensure that social, economic, environmental and cultural benefits are considered in the decision-making process. Key planning principles in achieving this include reference to the planning system having a:

Vital role to play in making development resilient to climate change, decarbonising society and developing a circular economy for the benefit of

both the built and natural environments, and to contribute to the achievement of the well-being goals.

61 Furthermore, key factors in the process of considering the acceptability of proposals are noted as including consideration of:

- ▲ are the environmental impacts of development on health and amenity limited to acceptable levels and the resilience of ecosystems improved;
- ▲ how the proposal would support the achievement of a more prosperous, low carbon, innovative and resource efficient Wales;
- ▲ will the causes and impacts of climate change be fully taken into account through location, design, build, operation, decommissioning and restoration; and
- ▲ does it support decarbonisation and the transition to a low carbon economy.

62 Specifically, with regards renewable energy and offshore wind, section 5 of PPW 11 notes that low carbon electricity must become the main source of energy in Wales. In referring to Future Wales – The National Plan 2040, PPW 11 notes that *“The benefits of renewable and low carbon energy, as part of the overall commitment to tackle the climate emergency and increase energy security, is of paramount importance.”* Before highlighting that the planning system should *inter alia*:

- ▲ optimise the location of new developments to allow for efficient use of resources; and
- ▲ maximise renewable and low carbon energy generation.

63 and seek to achieve the Welsh Government target of:

- ▲ Wales to generate 70% of its electricity consumption from renewable energy by 2030

64 In its guidance for determining applications for renewable and low carbon energy technologies PPW 11 (paragraph 5.9.19) notes that planning authorities should take into account:

- ▲ the contribution a proposal will make to meeting identified Welsh, UK and European targets;
- ▲ the contribution to cutting greenhouse gas emissions; and
- ▲ the wider environmental, social and economic benefits and opportunities from renewable and low carbon energy development.

65 PPW 11 provides further guidance that planning authorities should identify and require suitable ways to avoid, mitigate or compensate adverse impacts of renewable and low carbon energy development. The same emphasis is placed on developers who PPW 11 recommends should take an active role in engaging with the local community on renewable energy proposals, including pre-application discussion, and wherever possible consider how to avoid, or otherwise minimise adverse impacts through careful consideration of location, scale, design and other measures. Whilst AyM is, as is noted previously in the context of the draft NPS, constrained with regards where it can be located, Volume 1, Chapter 4 Site Selection and Alternatives (application ref: 6.1.4), provides a comprehensive account of the engagement the Applicant has undertaken with local communities and stakeholders to identify appropriate mitigation and minimise effects wherever practical. The process of engagement, recorded in full in the Consultation Report and Evidence Plan Report (application ref: 5.1 and 8.2 respectively), has resulted in the AyM project minimising impacts across all receptor groups, notably:

- ▲ Offshore and onshore ecology; through avoidance and where avoidance is not possible through appropriate mitigation and management strategies (such as the mitigation schedule (application ref: 8.11) and the Outline Landscape and Ecology Management Plan application ref: 8.4);
- ▲ Seascape and landscape; through a markedly reduced offshore footprint and turbine numbers; and
- ▲ Onshore historic environment; through avoidance and where avoidance is not practical through appropriate written schemes of investigation and mitigation, an outline version of which is included in application ref: 8.3, which has been agreed as fit for purpose with CPAT.

- 66 PPW 11 (paragraph 5.9.25) identifies that the benefits associated with any renewable energy development should be fully factored into, and given weight in the decision-making process. In particular, noting that some benefits can be justified as mitigation of development impacts through the planning process, or with benefits not directly related to the planning process. The Applicant has a long history of offering community benefits within the region, notably through the GyM community benefit fund. The AyM project is undertaking community consultation with a view to providing a community benefit fund that, whilst likely to be different in nature and not associated with the planning process, will offer the opportunity for the community to continue to benefit.
- 67 PPW 11 (paragraph 5.9.29) also identifies, of notable importance to the AyM project, that:
- “The extension and re-powering of existing renewable energy infrastructure is important in meeting renewable energy and decarbonisation targets.*
- Planning authorities should support such schemes and take into account changes in renewable energy technology and viability, which may mean, for example, that the format of a repowered wind farm will be different from an existing scheme.”*
- 68 The importance therefore of AyM, as an extension to its sister project GyM, is recognised within PPW 11, and it is also recognised that changes in renewable energy technology should be taken into account, with acknowledgement given that the format may be different. In the case of AyM, the Applicant is constrained both in the location of the windfarm and in the likely technology available, meaning the turbines cannot match the parameters of the existing projects in the area. The new technology available does however, as is captured in the Site Selection and Alternatives Chapter, offer the opportunity to minimise other environmental effects such as marine ecology impacts from underwater noise, loss of habitat, and collision risk to birds.

4.4.3 Net Zero Wales

- 69 Following on from the Prosperity for All: A Low Carbon Wales (Welsh Government, 2019a), the Net Zero Wales (Welsh Government, 2021c) plan covers the second carbon budget (2021-25). The suite of regulations passed by the Senedd in March 2021 increased the Welsh decadal emissions targets from their 2018 level and set Carbon Budgets 2 and 3 in line with them. The targets and budgets set in law are:
- ▲ Carbon Budget 2 (2021-25): 37% average reduction with a 0% offset limit;
 - ▲ Carbon Budget 3 (2026-30): 58% average reduction;
 - ▲ 2030: 63% reduction;
 - ▲ 2040: 89% reduction; and
 - ▲ 2050: at least 100% reduction (net zero).
- 70 The plan focuses on the need to outperform the second carbon budget (of 37% average reduction in emissions) to build the foundations necessary to meet the significant step change (of 58% average reduction) required by the third carbon budget (2026-30).
- 71 The plan contains 123 policies and proposals across all ministerial portfolios, including:
- ▲ Policy 24 – Marine evidence, planning and licencing: supporting offshore and marine renewable energy deployment; and
 - ▲ Policy 27 – Maximising Welsh benefit from commercially operated infrastructure projects in Wales (stating that in the offshore wind and floating offshore wind sectors the government will work with the owners of major infrastructure to develop local supply chains).

4.5 Marine Policy

- 72 Section 59 of the Marine and Coastal Access Act 2009 (MCAA) sets out that both the UK-wide Marine Policy Statement (MPS) (September 2011) and the Welsh National Marine Plan (WNMP) (November 2019) are the appropriate marine policy documents for the purposes of Section 104 of the 2008 Act. The MPS provides the policy framework for the preparation of marine plans, and the basis for decisions affecting the marine areas. The MCAA requires that all public authorities taking decisions regarding the marine area should do so in accordance with the MPS, unless relevant considerations indicate otherwise. Once adopted, marine plans carry the same weight.
- 73 The MPS sets out (at paragraph 3.3.4) that when decision-makers are examining and determining applications for energy infrastructure (and marine plan authorities are developing Marine Plans) they should take into account, *inter alia*:
- ▲ The national level of need for energy infrastructure, as set out in the Overarching National Policy Statement for Energy (EN-1), which applies in England and Wales;
 - ▲ The positive wider environmental, societal and economic benefits of low carbon electricity generation and carbon capture and storage as key technologies for reducing carbon dioxide emissions;
 - ▲ That the physical resources and features that form oil and gas fields or suitable sites for gas or carbon dioxide storage occur in relatively few locations and need first of all to be explored for and can then only be exploited where they are found. Similarly, renewable energy resources can only be developed where the resource exists and where economically feasible; and
 - ▲ The potential impact of inward investment in offshore wind, wave, tidal stream and tidal range energy related manufacturing and deployment activity; as well as the impact of associated employment opportunities on the regeneration of local and national economies. All of these activities support the objective of developing the UK's low carbon manufacturing capability.

- 74 The MPS accepts that renewable energy infrastructure can potentially have adverse effects on fish, mammals, and birds but at the same time recognises at paragraph 3.3.19 that *"the UK has some of the best wind resources in the world and offshore wind will play an important and growing part in meeting our renewable energy and carbon emission targets and improving energy security by 2020, and afterwards towards 2050"* and that *"offshore wind has the potential to have the biggest impact in the medium-term on security of energy supply and carbon emission reductions through its commercial scale output"*.
- 75 AyM is in line with the vision and objectives of the MPS by virtue of its substantial contribution to renewable energy targets, thereby helping in the development of a low carbon economy and as a sustainable economic development. As demonstrated by the assessment contained in the Environmental Statement, potential likely significant effects of AyM have been or will be avoided or reduced as far as possible and the societal benefits of the marine area will be retained, in line with the requirements of the MPS.
- 76 The relevant marine plan policies have been taken into account in preparing the application; Annex 8.2.1 to this Planning Statement provides an audit of the WNMP policies of relevance to AyM. Notably the WNMP includes, amongst its key objectives, objective 3 which notes the WNMP should *"Support the opportunity to sustainably develop marine renewable energy resources with the right development in the right place, helping to achieve the UK's energy security and carbon reduction objectives, whilst fully considering other's interests, and ecosystem resilience."* The WNMP puts the targets for marine renewable energy in context through reference to the legal target of 80% renewable energy to be achieved by 2050, with 70% of electricity consumption to be achieved with renewable energy by 2030, and through reference to AyM's sister project GyM which *"currently provides the largest single contribution to marine renewable electricity in Wales [...] powering 400,000 homes"*.

- 77 It is recognised that the WNMP, in providing policies to guide the consideration of offshore wind, also identifies in Sector Objective 1 that the WNMP aims to *contribute significantly to the decarbonisation of our economy and to our prosperity by increasing the amount of marine renewable energy generated, through [...] supporting further commercial deployment of offshore wind technologies at scale over the lifetime of this plan*. There is therefore evident support for deliverable and proven projects such as AyM that deliver the required contribution to carbon targets and the economy at scale.
- 78 The WNMP also notes in Objective 2 that the WNMP should aim “*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*”. This objective should be considered in the context of the contribution already being made by RWE as the lead Applicant in their support of the Coleg Llandrillo, in what has become an award-winning national hub for wind turbine technician apprenticeships. The programme was first launched in 2012, with a national hub launched in 2020 via a call for top local candidates to join the scheme. The existing contribution of RWE as the majority shareholder to the WNMP objective is therefore evident, and the AyM development will continue to encourage local training and employment through offering local opportunities to work in the offshore wind industry.
- 79 Marine policy therefore supports renewable energy, and specifically recognises the important contribution made by GyM. The WNMP also puts an emphasis on the importance of project legacy for coastal communities, an importance that the Applicant shares as is evident both in the legacy from the development of GyM, the award-winning apprenticeship scheme at Coleg Llandrillo, and in the emerging community benefit package associated with AyM.
- 80 The relevant marine plan policies have therefore been taken into account when preparing the application.

4.6 Other Policy

- 81 Where it is deemed important and relevant, existing and emerging local-level planning policy and guidance may carry some weight in the consideration of an application for development consent, according to the stage of preparation, the extent to which there are unresolved objections to relevant policies and the degree of consistency of the relevant policies to the policies in PPW 11 and 'Future Wales - The National Plan 2040'. Nevertheless, it is the NPSs that provide national policy for a DCO application and provide the primary basis for decision-making under the Act.
- 82 Local authorities are required to prepare and maintain up-to-date Local Development Plans (LDP) which set out their objectives for the use and development of land within their jurisdiction, and general policies for implementation. Where a conflict might arise between the NPS and local policy, the NPS will supersede local policy.
- 83 In principle, the following existing LDP for the district and county in which AyM will be located may be relevant for the EIA. It is important to note that an Adopted Development Plan is in place for Denbighshire, whilst the replacement LDP remains under development.
- ▲ Denbighshire Local Development Plan 2006-2021 (adopted 2013);
- 84 The LDP policies are considered in detail against individual topic areas in Section 6. The following text summarises the policies that are relevant, and have been met by AyM as follows:
- ▲ Policy RD 1 - Sustainable development and good standard guidance;
- 85 AyM supports this policy through managing impacts to avoid unacceptable effects to the amenity of local residents, unacceptable effects on the local highway networks, and incorporates suitable landscaping measures to enrich and enhance the receiving environment wherever possible, and has regard to the generation, treatment and disposal of waste.
- ▲ Policy RD 2 – Green Barriers;

- 86 AyM supports this policy through placing infrastructure sensitively when considering the existing green barrier around Rhyl and the strategic planning allocations.
- ▲ Policy RD 5 - The Welsh language and the social and cultural fabric of communities;
- 87 AyM supports this policy by managing impacts such that there will be no negative impact on the Welsh language. Notwithstanding this, the Applicant has committed to ensuring non-technical public signage is bilingual to promote Welsh language. As such, there will be no significant harm to the Welsh character or language balance of the community, and as such there is no impediment to the policy target being met.
- 88 Whilst the project is national infrastructure there are no anticipated long term community effects predicted. The proposed inclusion of Welsh language within the project Communications Plan (appendix 12 of the Code of Construction Practice (application refs: 8.13.12 and 8.13 respectively)), further contributes to the promotion of the Welsh language.
- ▲ Policy BSC 3 – Securing Infrastructure Contributions from Development;
- 89 The AyM project has avoided, through the site selection process and appropriate mitigation measures (schedule of mitigation; application ref: 8.), the need for any significant social, physical and environmental infrastructure requirements. As such there is no impediment to the policy target being met.
- ▲ Policy BSC 5 – Key Strategic Site – Bodelwyddan
- 90 The AyM site selection process has been managed in consultation with DCC to minimise any impact on the Key Strategic Site (KSS) at Bodelwyddan through sensitive placement and alignment of the proposed (underground) onshore export cable with existing infrastructure such that it will be possible to integrate it within the allocations of green and open space. The same cognisance has been placed on the potential need for mitigation land within the KSS, which has been aligned as far as practicable to coincide with areas that will not sterilise any future KSS development.

91 As such there is no impediment to the policy target being met.

▲ Policy BSC 11 – Recreation and Open Space

- *Existing recreation, public open space, allotments and amenity greenspace will be protected and where possible enhanced. Development that would result in the loss of public or private land with recreational and/or amenity value will only be permitted where alternative outdoor provision of equivalent or greater community benefit is provided.*

92 The AyM site selection process has been managed to minimise any impact on recreation and open space. The process has avoided the loss of public and private land with recreational value, notably through revision of the project design at landfall in response to stakeholder feedback. Feedback received indicated that significant effects may occur on the Rhyl golf course if the proposal for Transition Joint Bays within it; as a result, the design option for TJBs within the golf course has been removed, with the Applicant committing to HDD underneath it. The project does not interact with any formally designated open space land, with any interaction limited to temporary impacts on areas of the beach and promenade which do not trigger a need for replacement open space land.

▲ Policy PSE 15 - Safeguarding Minerals

- *High quality resources of minerals, including limestone, sand and gravel, Denbigh Gritstones, igneous and volcanic deposits will be safeguarded from development that would result in its permanent loss or hinder future extraction. Development will only be permitted where:*
 - *i) it can be demonstrated that the need for the development outweighs the need to protect the mineral resource; or*
 - *ii) where such development would not have a significant impact on the viability of that mineral being worked; or*
 - *iii) where the mineral is extracted prior to the development.*

93 The AyM site selection process has been managed to minimise any impact on mineral areas.

▲ Policy VOE 1 – Key Areas of importance

- *Development proposals should maintain and, wherever possible, enhance these areas for their characteristics, local distinctiveness, and value to local communities in Denbighshire;*
- *Statutory designated sites for nature conservation;*
- *Local areas designated or identified because of their natural landscape or biodiversity value;*
- *Sites of built heritage; and*
- *Historic Landscape, Parks and Gardens.*

94 Volume 1, Chapter 4 of the ES (site selection and alternatives) gives detailed consideration to the iterative design process and project golden rules that have resulted in avoidance of infrastructure in sites designated for landscape, biodiversity, heritage and Historic Landscape, Parks and Gardens. The avoidance of sites important for biodiversity has been applied across both the offshore and onshore elements of the project wherever practicable, with key design changes offshore including avoidance of the Constable Bank feature, as requested during stakeholder feedback.

95 Similarly, the onshore infrastructure has been sited to avoid direct interaction with designated sites. Indirect visual interaction with onshore infrastructure has been minimised where practicable and is subject to an Outline Landscape and Ecological Management Plan (application ref: 8.4). As such there is no impediment to the policy target being met.

▲ Policy VOE 2 - Area of Outstanding Natural Beauty and Area of Outstanding Beauty

- *The Clwydian Range AONB.*

96 Volume 2, Chapter 10 (Seascape Landscape Visual Impact Assessment, and Volume 3, Chapter 2 (Landscape and Visual Impact Assessment) (application ref: 6.2.10 and 6.3.2 respectively) consider the potential impacts on the Clwydian Range AONB from offshore and onshore infrastructure respectively. The assessments conclude no significant effect with regards the EIA Regulations, and no unacceptable harm to the character and appearance of the landscape or the reasons for designation. As such there is no impediment to the policy target being met.

▲ Policy VOE 5 – Conservation of natural resources.

97 AyM site selection process has avoided all designated sites and protected species as far as practicable. Where avoidance has not been possible mitigation, and where necessary compensation or enhancement measures have been introduced, in some cases in advance of commencement of development. Detailed consideration is provided in Volume 2, Chapter 5 (Onshore Biodiversity and Nature Conservation; application ref: 6.3.5), with further detail on the proposed compensation, mitigation and enhancement provided in the Outline Landscape and Ecological Management Plan). As such there is no impediment to the policy target being met.

▲ Policy VOE 10 Renewable energy technologies

- *Development proposals which promote the provision of renewable energy technologies may be supported providing they are located so as to minimise visual, noise and amenity impacts and demonstrate no unacceptable impact upon the interests of nature conservation, wildlife, natural and cultural heritage, landscape, public health and residential amenity. In areas that are visually sensitive, including the AONB, Conservation Areas, World Heritage Site and Buffer Zone and in close proximity to historic buildings, visually intrusive technologies will not be permitted unless it can be demonstrated that there is no negative impact on the designation or there is an overriding public need for the development.*

98 Although noted as not relating to wind energy (which is considered with regards onshore wind in DDC LDP Policy VOE09) it is relevant insofar as the AyM site selection process having sought to minimise visual, noise and amenity impacts as far as practicable. The result is that the EIA concludes impacts on nature conservation, wildlife, natural and cultural heritage, public health and residential amenity to be not significant with regards the EIA Regulations (and therefore deemed acceptable in planning terms).

- 99 With regards the Clwydian Range AONB impacts are similarly deemed to be not significant and acceptable. With regards broader regional areas that are visually sensitive it is considered that harm has been minimised through iterative and reductive design, and the impacts are acceptable as there is a demonstrable need and overriding public need for the project, in order for the UK to reach the Government renewable energy targets and to meet the local and national planning policies to meet and mitigate the climate emergency.
- 100 As such there is no impediment to the policy target being met.

5 Need for the Project

5.1 Overview

101 The extant and draft NPSs establish the policy need for new renewable energy generation and this is set out in section 5.2. The key drivers underpinning the need for renewable energy within the UK, and why the government believes there is an urgent need for new electricity NSIPs are discussed throughout this section, with the NPSs in particular considered further in Sections 5.2.

- ▲ The need to reduce greenhouse gas emissions, including increasing energy generation from low carbon sources to replace high carbon energy sources such as burning coal and gas;
- ▲ In March 2019, the UK offshore wind sector committed to a sector deal which aims to increase offshore wind capacity to 30GW by 2030 (RenewableUK, 2019), which represents an increase from the approximately 8GW currently deployed today, envisaging an investment of £48 billion in the UK offshore wind infrastructure;
- ▲ The need for energy security, including:
 - The need to secure safe, affordable, reliable energy, preferably generated in the UK for the UK market;
 - The need to replace existing ageing energy generation infrastructure;
 - The need to meet expected electricity demand whilst meeting climate change commitments; and
- ▲ The need to maximise social and economic opportunities for the UK from energy infrastructure investment, as noted in the Clean Growth Strategy (Department for Business, Energy & Industrial Strategy (BEIS), 2017) and the UK offshore wind sector deal (Renewable UK, 2018) which aims to create 27,000 skilled jobs across the UK (up from 11,000 today) mainly in coastal areas by 2030.

102 As a result of the war in Ukraine and its impact on global energy markets, sharp focus has been placed on the U.K.'s dependence on imports to heat homes, fuel cars and generate electricity. Energy security is considered to be a primary policy driver, with the need for offshore wind considered to form a critical part of the energy security plan anticipated in March 2022.

5.2 National Policy Statements: the need for new nationally significant energy infrastructure projects and offshore wind projects

- 103 Part 3 of NPS EN-1 establishes an indisputable and urgent policy need for all types of energy infrastructure in order to achieve energy security and dramatically reduce carbon emissions (paragraph 3.1.1). It is not therefore necessary, when determining applications for offshore wind, to demonstrate a specific need for the principle of offshore wind development. Part 3 also explains that, without significant amounts of new large-scale energy infrastructure, the Government's energy and climate change objectives cannot be fulfilled and this will not be possible without some significant residual adverse impacts (paragraph 3.2.3). Beyond the principle of offshore wind being needed, it is important to note that the targets within the extant NPS, and markedly the draft NPS, require a level of deployment such that all currently planned and proposed offshore wind projects are necessary. This is captured within draft para 3.2.6 which states that in relation *to the weight to be given to that identified need, the [Secretary of State] has determined that substantial weight should be given to this need when considering applications for development consent under the Planning Act 2008*. With regards the role of offshore wind, the draft NPS notes that *a secure, reliable, affordable, net zero consistent system in 2050 is likely to be composed predominantly of wind and solar*. (EN-1 further notes the committed target of 40GW of offshore wind by 2030, which in practice means the installation of in the region of 2,666 of the larger turbines currently available (Haliade X - 15MW) at a rate of 333 turbines per year.
- 104 In particular, NPS EN-1 sets out that electricity meets a significant proportion of overall energy demand and reliance upon it is likely to increase in the period leading up to 2050. When combined with the UK Government's legal obligation to reduce the UK's greenhouse gas emissions by at least 80% (from 1990 levels), an urgent need for new NSIPs to deliver electricity has been established (paragraph 3.3.1). The revised targets as presented within the draft NPS EN-1, are to achieve net zero by 2050, with ~78% reduction to be achieved by 2035.

105 Section 4 of NPS EN-1 sets out a number of assessment principles that should be taken into account when considering proposals for new energy infrastructure. Where appropriate, these considerations have been addressed in each topic chapter of the Environmental Statement.

5.3 The Need to reduce greenhouse gas emissions

106 In EN-1, predictions are made that a continuation of global emission trends, including emissions of greenhouse gases such as carbon dioxide, could lead average global temperatures to rise by up to 6°C by the end of this century. The potential impacts associated with such a global temperature rise include (DECC, 2014):

- ▲ Increased frequency of extreme weather events such as floods and drought;
- ▲ Reduced food supplies;
- ▲ Impacts on human health;
- ▲ Increased poverty; and
- ▲ Ecosystem impacts, including species extinction.

107 The UK Committee on Climate Change (CCC) (2017 carbon budget) reported that 2016 was the hottest year on record, which represented the fifth time in the 21st century a new record high annual temperature had been set (along with 2005, 2010, 2014, and 2015). The UK CCC, in its 2021 status report noted that the 2010s was the hottest decade on record globally; 2020 was then recorded as the second warmest year on record (metoffice, 2021), and 2021 the fifth warmest on record.

108 A commitment by the UK was made during the 26th Conference of the Parties (COP) in Glasgow in 2021 to pursue efforts to limit the global temperature increase to within 1.5°C of the pre-industrial average temperature.

- 109 Power sector emissions fell 17% in 2015 to 50% below 1990 levels. This follows an average annual decrease of 5% in the years between 2009 and 2014. This reduction is largely due to an increase in renewable and nuclear generation, equating to almost half of the UK's electricity demand in 2015 (CCC, 2016a). In order to achieve necessary ongoing reductions in emissions, the CCC recommended that the UK government should set out an intention to support 1-2GW of offshore wind per year, provided costs continue to fall, with a view to phasing out subsidies in the 2020s (CCC, 2015a).
- 110 The EU and UK legislation that has been put in place to secure a reduction in emissions is outlined in the Environmental Statement (ES) Chapter 3 Policy and Legislative Context (application ref: 6.1.3).

5.4 The need to replace closing electricity generating capacity

- 111 Around a quarter of the total UK generating capacity (22 GW of 85 GW) was forecast to need replacing, with much of this by 2020 and the remainder by 2022. Since publication of the extant NPS EN-1, several additional factors have led to an even higher figure than envisaged:
- The UK Government has committed to a complete phase-out of coal fired power stations by 2025 and restrictions on its use from 2023 (UK Government 2015); this combines with a global agreement reached at COP26 to phase out coal usage. European pollution standards and the UK's minimum floor price set in the Government's 2013 Control for Low Carbon Levies meant that in 2018 a combined capacity of around 11GW of coal generated less than 16 TWh (approximately 4.8% of total generation) compared with 103 TWh in 2011 (BEIS 2018b);
 - As of 2019, seven coal plants were operational, this has now reduced to three, with a further coal plant anticipated to close in 2022 (2 GW West Burton A) and a further (Kilroot in County Antrim) converting to gas.;
 - Due to life extensions, no nuclear stations are anticipated to close before 2020, but four are scheduled for closure by 2025 with a combined net capacity of around 4 GW; and
 - According to CCC analysis in 2015, 11.6 GW of combined cycle gas turbines (CCGT) will have closed by 2025.

- 112 As a result, between 41GW and 44 GW of coal, gas and nuclear closures are expected by 2025 (BEIS 2018c), which is significantly larger than the NPS EN-1 figure of 22GW (between 19 and 22 GW larger). Paragraph 3.3.9 is clear that *“any reduction in generation capacity from current levels will need to be replaced in order to ensure security of supply is maintained.”*

5.5 Future increases in demand

- 113 The extant EN-1 (paragraphs 3.3.13 – 3.3.14) anticipates that large parts of the country's heat and transportation demand will be electrified, meaning total electricity consumption (measured in terawatt hours over a year) could double or even triple by 2050, depending on the choice of how electricity is supplied.
- 114 BEIS (BEIS 2018c) reference scenario project predicted that total final electricity demand will fall slightly from 25.8 million tonnes of oil equivalent (Mtoe) in 2017, from 27.3 Mtoe in 2011, to 24.3 Mtoe in 2022. It is then projected to increase steadily, reaching 27.5 Mtoe in 2030.
- 115 In 2020, the CCC identified that as demand grows, more capacity will be needed and their balanced scenario would necessitate deploying 3 GW a year of wind, to reach 430 TWh by 2050, and reach the target 40GW of de-rated electricity capacity by 2030, and 65-125 GW by 2050 (CCC 2020). AyM would contribute significantly towards this need.
- 116 In summary, the likely increase in electricity demand is uncertain, but is likely to be considerably higher than today, particularly now that the Government has legislated for net zero emissions. This translates into very significant need for large-scale renewable energy projects. The role of offshore wind in delivering this additional capacity of low carbon energy is highlighted by the CCC reports which recognise that the sector is now maturing and showing very significant cost reductions.

- 117 The large-scale deployment of renewables will help the UK to reduce its emissions of carbon dioxide by over 750 million tonnes by 2020 (paragraph 3.4.2) with offshore wind expected to provide the largest single contribution towards the 2020 renewable energy targets (paragraph 3.4.3). Furthermore, in order to significantly decarbonise the power sector by 2030, NPS EN-1 indicates that it is necessary to bring forward renewable energy projects as soon as possible (paragraph 3.4.5).
- 118 The extant NPS EN-3 recognises that offshore wind farms will deliver a significant proportion of the UK's renewable energy generating capacity up to 2020 and towards 2050 (paragraph 2.6.1). It also refers to the Offshore Energy Strategic Environmental Assessment (SEA) which concludes that there are no overriding environmental considerations preventing the plans [at that time] for 25 GW of new offshore wind capacity, if mitigation measures are implemented to prevent, reduce and offset significant adverse effects (NPS EN-3, paragraph 2.6.15). The draft NPS makes clear reference to the revised target of 40 GW of new offshore wind capacity; a figure which was revised upward to 50 GW by 2030 in the April 2022 UK Government Energy Security Statement.

5.6 Role of offshore wind

- 119 The role of offshore wind is key in achieving the UK Government targets for 2030 and 2050. The offshore wind industry presents an opportunity to utilise and further develop the UK's maritime engineering skills as other industries decline (such as shipbuilding and North Sea oil) in order to secure supply chain and other employment opportunities in the UK. The importance of maximising opportunities for the involvement of local businesses and communities in offshore wind has been highlighted as a key success factor for the sector in the UK (The Crown Estate, 2014).

- 120 In 2019, the offshore wind sector deal noted that the share of offshore wind in UK energy generation had increased from 0.8% in 2010 to 6.2% in 2017, reaching 10% in 2020. In March 2020, one year on from the sector deal, there was 9.8 GW of installed offshore wind capacity, which was anticipated to reach 19.5 GW by the mid 2020s (at the time of writing the offshore capacity is 10.5 GW). The UK Government has since committed to a target of 40 GW of installed offshore wind capacity by 2030. From the point of writing to 2030 there are therefore eight years to install a further 29.5 GW of offshore wind projects; as noted previously achieving this will require new projects to be delivered at approximately double the rate of the capacity installed to date.
- 121 The Welsh government commissioned a report by the Carbon Trust, (Future Potential for Offshore Wind in Wales, Carbon Trust, 2018) which concluded that a potential extension at GyM was a priority near-term opportunity for Wales to add to its existing fleet of assets, increasing in excess of 80% the 726 MW already installed and resulting in a cumulative capacity in excess of 1.3 GW, or 27% of total electricity consumption in Wales. The role of AyM is therefore clear in delivering a tangible, significant contribution to Welsh electricity demand and renewables targets which is deliverable within the short term, and in advance of currently undefined future projects or technology.
- 122 The same report (Carbon Trust, *ibid*) noted that offshore wind projects are a major driver of economic activity, unlocking €35 billion in the UK between 2010 and 2017. The local content achieved by offshore wind projects was, in 2018, at 48% and heading towards the 50% target set by UK Government for 2020. Chapter 3, Volume 3, Socioeconomics (application ref: 6.3.3) provides further detail on the contribution made by offshore wind within the North Wales region to date, and that anticipated to be made by the AyM project. This contribution will also be captured within the project Supply Chain Plan, a pre-requisite of the Contract for Difference process, which will present the anticipated local content target.
- 123 The role of offshore wind, and AyM in particular, in delivering both clean energy (to meet government targets) and significant economic benefits (to the UK and North Wales in particular) is therefore a material consideration in the planning balance for the proposed project.

5.7 Local support for the benefits of offshore wind

- 124 Planning Policy Wales 11, Paragraph 5.9.16, notes that *Wales has an abundant wind resource and, as a result, wind energy forms a key part of meeting the Welsh Government's vision for future renewable energy production.*
- 125 The Denbighshire LDP recognises that *Climate change is perhaps one of the largest threats to our environment. Denbighshire needs to minimise the impact it has on climate change by ensuring new development can be accessed sustainably, minimises energy use, and by ensuring that the use of renewable energy is maximised wherever possible.* This is supported through one of the key objectives for the LDP which is to ensure *that Denbighshire makes a significant contribution to reducing greenhouse gases through both supporting the principle of large wind farm development within identified zones and other suitable renewable energy technologies.*
- 126 The Conwy LDP (2007 – 2022) similarly recognises that Conwy is vulnerable to the impacts of climate change, and that *there is a need to [...] exploit renewable energy production through installed electricity generating capacity.* The support for renewable energy is further noted within Spatial Objective SO11 which highlights the LDP seeks the *promotion of renewable energy developments where they have prospects of being economically attractive and environmentally and socially acceptable.*

- 127 The (2011 to 2026) Anglesey and Gwynedd Joint Local Development Plan (JLDP) recognises, in the context of wind energy developments, that *planning policy at all levels should facilitate delivery of both the Welsh Government's overall Energy Policy Statement, and UK and European targets on renewable energy* with a strategic objective of the JLDP noted as promoting renewable and low carbon energy production within the area (Strategic Objective *Theme 2: Sustainable Living*). Further to the support within the JLDP, the Isle of Anglesey in establishing the Anglesey Energy Island Programme has sought to create a once in a lifetime opportunity for jobs, economic growth and prosperity through capitalising on a number of transformational projects on Anglesey. In 2020, the Energy Island Programme identified its potential as a driver for a low carbon socio-economic recovery from the Coronavirus.
- 128 In the context of support at the local, regional, and national level it is also relevant to note that there is a recognised need to address the climate and ecological emergency. The Welsh Government declared a climate emergency on 29 April 2019, which was accompanied by similar declarations in Denbighshire (2 July 2019), Gwynedd (7 March 2019), Conwy (9 May 2019), and a unanimous declaration made by Isle of Anglesey (20 September 2020). Denbighshire County Council, as part of the declaration, and captured within the Climate and Ecological Change Strategy 2021-2022 to 2029-30, commit to becoming a Net Carbon Zero Council by 2030.
- 129 It is also relevant to note the Management Plan Review for the Isle of Anglesey AONB also recognises the need to balance potential development that may be proposed within or affecting the AONB. The Review recognises *there is a focus on Anglesey becoming an energy development Island both in Nuclear and Alternative Energy which may include large scale offshore wind farms, marine turbines and solar farms*. Volume 2, Chapter 10 Seascape, Landscape and Visual Impact Assessment (application ref: 6.2.10) provides further consideration on the interaction between AyM and the AONB.

5.8 Apportioning weight to the need established in the planning balance & decision making

- 130 All applications seeking Development Consent for energy NSIPs should be assessed by the Secretary of State on the basis there is a demonstrated need for those types of infrastructure and that the scale and urgency of that need is as described in NPS EN-1 (paragraph 3.1.3) and summarised above.
- 131 Furthermore, substantial weight should be given to the contribution which projects would make towards satisfying that need (paragraph 3.1.4). In this policy context, AyM would make a substantial contribution towards the delivery of renewable energy in line with the need to significantly decarbonise the power sector by 2030 and should therefore be ascribed substantial weight in the balance of considerations and the presumption in favour of such developments (paragraph 4.1.2).
- 132 The principle need for AyM is therefore established.

6 Accordance with National Policy Statements and other national and regional policy

6.1 Introduction

- 133 This section presents AyM's accordance with each relevant NPS, presenting the relevant NPS test for a given technical area. Where relevant, contextual reference is also made to the Marine, Welsh National, and local policies which were considered in detail in Section 4.4. With regards the NPSs, it is noted that they are subject to revision, with a draft suite of revised NPSs produced for consultation in November 2021. The documents have not been finalised; however, they have been used where appropriate throughout this document to identify where the key draft NPS tests have been met. The individual topic chapters provide a record of all draft NPS provisions that differ from the extant NPS, and how the project has accorded with them, noting that the final revised NPS provisions may differ from the drafts. This reflects the transitional provisions within the draft EN-1 which note *inter alia* *The Secretary of State has decided that for any application accepted for examination before designation of the 2021 amendments, the 2011 suite of NPSs should have effect in accordance with the terms of those NPS. The 2021 amendments will therefore have effect only in relation to those applications for development consent accepted for examination after the designation of those amendments.*
- 134 The remainder of this section identifies the policy requirements and decision-making considerations set out in the NPSs and, where relevant, other planning policy.
- 135 Each topic is structured as follows:
- ▲ National Policy Statements
 - Describes the requirements set out in the relevant NPSs for the assessment of the topic, how the project has met these requirements and had regard to the policy.
 - ▲ Other Policy Considerations

- Where relevant planning policy or legislative requirements have been identified beyond the NPSs, consideration of the regard to this is set out in this section.

▲ Considerations for the Secretary of State

- Identifies key considerations for the Secretary of State when having regard to AyM's compliance with relevant policy and the weight that project effects should be given in determining the overall planning balance.

136

6.2 Overview

137 This section summarises the key aspects of policy contained in the relevant NPSs and how they apply to the determination of the application for AyM.

138 The statutory framework for determining applications for Development Consent such as AyM is provided by the Planning Act 2008 (as amended). Section 104 of the Act confirms the matters the Examining Authority must have regard to in decision making where a national policy statement has effect, such as for AyM.

139 Section 104 (2) of the Act (as amended) states that:

*"In deciding the application, the [Secretary of State] must have regard to—
any national policy statement which has effect in relation to development of the description to which the application relates (a "relevant national policy statement"),*

(aa) the appropriate marine policy documents (if any), determined in accordance with section 59 of the Marine and Coastal Access Act 2009,

any local impact report (within the meaning given by section 60(3)) submitted to the [Secretary of State] before the deadline specified in a notice under section 60(2), any matters prescribed in relation to development of the description to which the application relates, and

other matters which the [Secretary of State] thinks are both important and relevant to the [Secretary of State's] decision."

140 In deciding the application for Development Consent for AyM, the relevant NPSs to which the Secretary of State must have regard in accordance with Sections 104(2) and 104(3) of the 2008 Act, are:

- Overarching National Policy Statement for Energy EN-1 (NPS EN-1) which sets out the Government's policy for the delivery of and the position in relation to the need for new Energy NSIPs, and the assessment principles and consideration generic impacts in relation to such projects.
- National Policy Statement for Renewable Energy Infrastructure EN-3 (NPS EN-3) which covers technology specific matters including offshore wind; and
- National Policy Statement for Electricity Networks Infrastructure EN-5 (NPS EN-5) which covers technology specific matters but mostly relates to the provision of overhead lines and as such, is of limited relevance as no new overhead lines are proposed as part of the AyM application.

141 NPS EN-1 confirms that the above NPSs:

- Indicate that in the event of a conflict between development plan documents and a NPS, the NPS prevails (paragraph 4.1.5); and similarly,
- Indicate that in the event of a conflict between a marine policy document (Marine Policy Statement or relevant Marine Plan) and an NPS, the NPS prevails given the national significance of the infrastructure (paragraph 4.1.6).

6.3 National Policy Statements: generic impacts and technology-specific impact policy (NPS EN-3 and NPS EN-5)

142 It is acknowledged by NPS EN-3 that due to the complex nature of offshore wind farm development many details of the scheme may be unknown at the time of submission (paragraph 2.6.42).

- 143 It is further accepted by NPS EN-3, and in accordance with Section 4.2 of NPS EN-1, that wind farm operators are unlikely to know the precise details of turbines to be used on site prior to consent being granted. Where details are not known, it should be explained which elements of the scheme are not finalised and this may lead to a degree of flexibility in the consent. Under these circumstances, it needs to be ensured that the proposal has been properly assessed to identify any potential impacts (the 'Rochdale Envelope'). This will allow the maximum adverse case scenario to be assessed and this uncertainty should be allowed in the consideration of the application and consent (paragraph 2.6.41).
- 144 The Environmental Statement, and Report to Inform Appropriate Assessment (RIAA) (application ref: 5.2) assess the impacts in terms of those covered in the NPSs. Section 6.4 *et seq* of this Planning Statement outlines the relevant policies and demonstrates AyM's accordance with these policy requirements based on the findings of the Environmental Statement and RIAA.

6.4 Consideration of alternatives

- 145 The consideration of alternatives is presented in Volume 1, Chapter 4 (Site Selection and Alternatives) of the ES (application ref: 6.1.4) and its associated annexes. This section of the Planning Statement provides a summary of notable elements of NPS EN-1 and NPS EN-3 before providing the Applicant's position with regards considerations for the Secretary of State.
- 146 There are five elements of legislation and policy compliance with regards the consideration of site selection and alternatives, namely the EIA Regs 2017, the Habitats Regulations, EN-1, EN-3, and EN-5.

6.4.1 National Policy Statements: NPS EN-1

EN-1 Policy: Paragraph 4.4.1 and 4.4.2

"As in any planning case the relevance or otherwise to the decision-making process of the existence (or alleged existence) of alternatives to the proposed development is in the first instance a matter of law, detailed guidance on which falls outside the scope of this NPS. From a policy perspective this NPS

does not contain any general requirement to consider alternatives or to establish whether the proposed project represents the best option.

However, applicants are obliged to include in their ES, as a matter of fact, information about the main alternatives they have studied. This should include an indication of the main reasons for the applicant's choice, taking into account the environmental, social and economic effects and including, where relevant, technical and commercial feasibility; in some circumstances, there are specific legislative requirements, notably under the Habitats Directive, for the [Secretary of State] to consider alternatives. These should also be identified in the Environmental Statement by the applicant."

How has this been addressed?

- 147 The Site Selection and Alternatives ES Chapter (application ref: 6.1.4) considers alternatives as required by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (EIA Regs 2017).
- 148 Requirements to assess alternatives under the Habitats Regulations (2017) (as amended) and the Offshore Habitats Regulations (2017) are addressed in the RIAA (application ref: 5.2) submitted as part of this application and accompanied the PEIR for consultation.

6.4.2 National Policy Statements: NPS EN-1

EN-1 Policy Paragraph 4.4.3

- 149 Paragraph 4.4.3 of EN-1 states that where there is a policy or legal requirement to consider alternatives, other guiding principles should be considered by the Secretary of State when deciding what weight should be given to alternatives, specifically:

'the consideration of alternatives in order to comply with policy requirements should be carried out in a proportionate manner;'

'the [Secretary of State] should be guided in considering alternative proposals by whether there is a realistic prospect of the alternative delivering the same infrastructure capacity (including energy security and climate change benefits) in the same timescale as the proposed development;'

'where (as in the case of renewables) legislation imposes a specific quantitative target for particular technologies or (as in the case of

nuclear) there is reason to suppose that the number of sites suitable for deployment of a technology on the scale and within the period of time envisaged by the relevant NPSs is constrained, the [Secretary of State] should not reject an application for development on one site simply because fewer adverse impacts would result from developing similar infrastructure on another suitable site, and [they] should have regard as appropriate to the possibility that all suitable sites for energy infrastructure of the type proposed may be needed for future proposals;'

'alternatives not among the main alternatives (noting that as required under the 2017 EIA Regulations reasonable alternatives are described within this chapter) studied by the applicant (as reflected in the Environmental Statement), should only be considered to the extent that the [Secretary of State] thinks they are both important and relevant to [their] decision;'

'as the [Secretary of State] must decide an application in accordance with the relevant NPS (subject to the exceptions set out in the Planning Act 2008), if the [Secretary of State] concludes that a decision to grant consent to a hypothetical alternative proposal would not be in accordance with the policies set out in the relevant NPS, the existence of that alternative is unlikely to be important and relevant to the [Secretary of State's] decision;'

'alternative proposals which mean the necessary development could not proceed, for example because the alternative proposals are not commercially viable or alternative proposals for sites would not be physically suitable, can be excluded on the grounds that they are not important and relevant to the [Secretary of State's] decision;'

'alternative proposals which are vague or inchoate can be excluded on the grounds that they are not important and relevant to the [Secretary of State's] decision; and'

'it is intended that potential alternatives to a proposed development should, wherever possible, be identified before an application is made to the [Secretary of State] in respect of it (so as to allow appropriate consultation and the development of a suitable evidence base in relation to any alternatives which are particularly relevant). Therefore, where an alternative is first put forward by a third party after an

application has been made, the [Secretary of State] may place the onus on the person proposing the alternative to provide the evidence for its suitability as such and the [Secretary of State] should not necessarily expect the applicant to have assessed it."

How has this been addressed?

- 150 The Site Selection and Alternatives ES Chapter sets out in significant detail the approach to and consideration of alternatives. AyM has provided further technical assessment in the Site Selection and Alternatives ES Chapter and its associated annexes, which provide a detailed presentation of the site selection and consideration of alternatives process. All of the main alternatives are described and assessed in the Site Selection and Alternatives ES Chapter. The ES Chapter identifies where alternatives are considered to either not be commercially viable or physically/technically unsuitable to the extent that they carry significant risk to the implementation of the project.
- 151 As an extension project, AyM by its nature is required to be adjacent to the existing GyM Offshore Wind Farm and consideration as to the alternative design of the wind farm array area is set out in the ES Chapter. Being an extension project there are certain benefits including an existing detailed knowledge of site characteristics, construction and operational considerations and relationships with local stakeholders which may enable AyM to be brought forward earlier and more efficiently than other non-extension offshore wind farms. This is considered further in relation to NPS EN-3 which identifies certain constraints that may be placed on extensions projects.
- 152 AyM has considered relevant potential alternatives including a proportionate approach to assessment. Where additional alternatives have been identified by stakeholders during the course of the development of the project these have also been considered and are set out in the ES Chapter.

6.4.3 National Policy Statements: NPS EN-3

EN-3 Policy: Paragraph 2.6.48

- 153 *The IPC should be aware of the potential for applications for extensions to existing wind farms and that there may be constraints on such leases over which the applicant will have little or no control.*
- 154 It is noted that the NPS EN-3 is subject to revision. At the time of writing, the document has not been finalised following consultation responses however there are key elements of relevance in the consideration of site selection for the proposed AyM project. Notably the draft NPS, in the consideration of Extension projects provides at paragraph 2.23.10 that *'The Crown Estate may offer new leases in areas adjacent to existing consented wind farms. This could be to either the owner/operator of the existing site or to a different company from that operating the existing wind farm. These leases will form extensions to existing wind farms.'* The implications of the lease areas forming extensions to existing wind farms is taken further in acknowledging, at paragraph 2.23.12, that *'The [Secretary of State] should be aware of the potential for applications for extensions to existing wind farms and that there may be constraints on such leases over which the applicant will have little or no control.'*

How has this been addressed?

- 155 In 2017, The Crown Estate defined application criteria for offshore wind project extensions. Whilst not specifically 'site selection policy' it is clear that the criteria form critical components in the site selection process for AyM this is also reflected in the draft NPS EN-3. The process, and how the AyM project has sought to fulfil them, is presented in the Site Selection and Alternatives ES Chapter.
- 156 The 2017 Extension Round criteria, which were also used to inform a strategic plan-level HRA, limit the spatial opportunity to extend the existing wind farm. For the reasons set out below the opportunity to extend the wind farm and realise the recognised wind energy potential at the site, exists only to the west of the operating GyM wind farm.

- 157 The Site Selection and Alternatives Chapter tabulates the 2017 Extension Round criteria and provides a detailed account of the Applicant's compliance with them. Of note is the second of the criteria which requires a proposed extension project to share a boundary with the existing wind farm; AyM meets this criterion by sharing its eastern boundary with the GyM project.
- 158 It is evident through a review of the remaining relevant criteria that the siting of a proposed extension to the GyM project is spatially limited. It is not feasible for example to site an extension to the north, without either blocking the international vessel routing measure into the newly-confirmed (2021) Freeport of Liverpool or failing to meet the shared boundary criteria. Similarly, it is not possible to site an extension project to the east, given existing constraints such as the Burbo Bank Extension project and existing seabed leases for aggregate extraction. It is further not feasible to extend to the south without constraints such as the existing nearshore wind farms of Rhyl Flats and North Hoyle, and causing greater environmental impacts such as placement of WTGs within the Liverpool Bay SPA, and placement of WTGs closer to coastal visual receptors.
- 159 Through iterative design and consultation, alternative areas have been considered, as is reflected in the Site Selection and Alternatives Chapter which chronologically presents the revision from the 107 km² Agreement for Lease area, which formed the focus of the scoping phase, through to the final application phase developable area which is 78km². This reduction has also reduced the proposed maximum number of turbines from 107 to 50. The combined footprint and capacity reduction has been defined through significant consultation and now is considered to represent the optimum, deliverable, economically-viable, alternative, balancing environmental impacts and potential harm with the critical need for renewable energy.

EN-3 Policy: Paragraph 2.6.81

- 160 The applicant should include an assessment of the effects of installing cable across the intertidal zone which should include information, where relevant, about:

- ▲ “any alternative landfall sites that have been considered by the applicant during the design phase and an explanation for the final choice”; and
- ▲ “any alternative cable installation methods that have been considered by the applicant during the design phase and an explanation for the final choice.”

How has this been addressed?

- 161 Alternative landfall sites have been considered and this assessment is set out in the Site Selection and Alternatives ES Chapter, along with the rationale for the final choice. Consultation informed the final choice of landfall, as was the case for the offshore cable route and the decision to avoid the Constable Bank feature on the request of stakeholders.
- 162 Cable installation methods have been considered and assessed as part of the EIA. Some flexibility has been retained for cable installation both offshore and in the intertidal zone due to uncertainties on ground conditions. Where optionality remains in the application, this has been fully assessed throughout the EIA.

6.4.4 Considerations for the Secretary of State

- 163 The assessment of alternatives has had regard to the relevant requirements for assessment set out in all relevant policy and regulations and been carried out in accordance with those requirements.
- 164 The applicant has also met the requirements Paragraph 4.4.2 of NPS EN-1 which requires *inter alia* consideration of alternatives under the Habitats Regulations and Offshore Habitats Regulations, undertaken consideration of suitable alternatives with regards minimising or avoiding designated sites, and/ or the specific features within the designated sites. AyM is in compliance therefore with all requirements of the Habitats Regulations.

- 165 Therefore, it is clear that the project has complied with all policy and legislation requirements with regards consideration of alternatives. Cognisance of the relevant policy and legislative requirements has resulted in specific design considerations, such as the commitment to underground cables instead of employing overhead lines, and the iterative design process which has sought to minimise visual impacts to coastal receptors.
- 166 With regards the overall process of site selection and consideration of alternatives, the Applicant has presented (in Volume 1, Chapter 4 and the associated technical annexes) a detailed and comprehensive assessment which takes account of reasonable alternatives. The potential effects on the environment are clearly considered. The influence that consultation has had on the process is presented. The Chapter presents a clearly-defined, staged process and identifies the main reasons for each of the options that have been progressed from one stage to a subsequent stage of the design evolution process.
- 167 The environmental information and assessment carried out for AyM demonstrate that there is no conflict with any of the tests set out in the EIA Regs 2017, The Habitats Regulations or the requirements of EN-1 and EN-3 such that the assessment of alternatives should not weigh against the substantial benefits of AyM when considering the planning balance.

6.5 Good design

- 168 As noted in section 6.4 the Applicant is constrained in its ability to apply a site selection process that would avoid all impacts, as a result of the 2017 Extensions round criteria. Notwithstanding this, the Applicant has sought, through consultation and iterative design, to minimise all environmental impacts as far as is practicable, whilst retaining an economically viable project. The following section provides further reference to the NPS tests, and how the applicant has sought to meet those tests.

6.5.1 National Policy Statement: NPS EN-1

EN-1 Policy: Paragraph 4.5.4

For the [Secretary of State] to consider the proposal for a project, applicants should be able to demonstrate in their application documents how the design process was conducted and how the proposed design evolved. Where a number of different designs were considered, applicants should set out the reasons why the favoured choice has been selected. In considering applications the [Secretary of State] should take into account the ultimate purpose of the infrastructure and bear in mind the operational, safety and security requirements which the design has to satisfy.

How has this been addressed?

- 169 Design decisions in terms of project infrastructure and location are set out in the Site Selection and Alternatives ES Chapter (Document 6.1.4).
- 170 Further design considerations of relevance to the onshore design are set out in the onshore Design Principles Document (application ref: 8.8) which describes layouts, landscaping and appearance of the proposed infrastructure including the onshore cable route and onshore substation. Additional detail of the potential reinstatement of the onshore cable route and screening proposals for the onshore substation can be found in the Outline Landscape and Ecological Management Plan (OLEMP) (application ref: 8.4).
- 171 With regards offshore design, the project has been designed in so far as reasonably practicable to apply good design, siting turbines in an area that seeks to reduce visual effects, avoiding placement of turbines within the Liverpool Bay SPA, whilst also complying with the necessary safety requirements with respect to safe navigation and operation of Search and Rescue procedures. Further design refinements, such as reducing turbine height or altering colour are not considered feasible due to the flexibility needed due to uncertainty in technological advances (as recognised in NPS EN-3) or due to other considerations such as operational safety which requires the turbines to be appropriately marked and painted to comply with navigational safety requirements.

EN-1 Policy: Paragraph 5.9.8

- 172 *Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.*

How has this been addressed?

- 173 It is important to note that, as a result of the requirements of the 2017 Extensions round, there are limitations with regards the possible siting of Extension projects; this is recognised in the 2021 draft NPS EN-3. Notwithstanding this, the project has undertaken a design process that goes as far as practicable to develop a design that seeks to minimise harm/ change to the receiving environment and this is reflected in the iterative process that has been applied to the scheme throughout the pre-application process.
- 174 To gain a thorough understanding of the capacity for the seascape and landscape to accommodate change, an assessment of the existing character has been completed for both seascape, with regards the offshore turbines and other infrastructure, and landscape with regards the onshore substation (application ref: 6.2.10 and application ref: 6.3.2 respectively).
- 175 With regards to careful project design, the onshore substation and National Grid connection have been sited outside any areas of designation, such as AONB. The site selection process (see Site Selection and ES Chapter 4, Site Selection and Assessment of Alternatives) indicated the onshore substation could be accommodated at the Bodelwyddan location without significant effects on the special qualities of any areas designated for visual amenity.

- 176 The sensitivity of the landscape and visual receptors in the LVIA study area has been a key consideration in the siting and design of the onshore infrastructure. A detailed consideration and assessment of the capacity of the landscape to accommodate the onshore infrastructure in relation to the screening afforded by the existing landforms, trees and hedgerows between sensitive receptors and the project infrastructure has been undertaken in the Landscape and Visual Impact Chapter (application ref: 6.3.2).
- 177 Additional landscape mitigation measures for the onshore substation are described in the Landscape and Visual Impact Chapter (*ibid*) and the OLEMP (application ref: 8.4). The extent of mitigation planting incorporated into the design is illustrated in the OLEMP. This includes woodland planting of:
- ▲ Core native woodland;
 - ▲ Screen native woodland mix;
 - ▲ Native woodland edge mix; and
 - ▲ Native hedgerows.
- 178 Photomontage visualisations showing predicted views of the onshore substation are shown without mitigation and with the landscape mitigation at 15 years post-planting in ES Figures 2.18 to 2.19 (application refs 6.2.3.1 to 6.2.3.9)
- 179 With regards careful design offshore, the turbines and other infrastructure have been sited, as far as reasonably practical, to avoid and minimise significant effects on the special qualities of the AONBs within the zone of theoretical visibility. A detailed consideration and assessment of the capacity of the seascape to accommodate the offshore infrastructure in the context of the existing baseline, characterised in many respects by the presence of offshore wind farm projects, has been undertaken in the SLVIA Chapter (application ref: 6.2.10).

- 180 It is considered that although the offshore infrastructure extends the influence of the seascape and results in significant effects on some of the character and views from areas of the North Wales and Anglesey coast these effects are not significant on all receptors. Further, feedback received during public engagement events and recorded in the Consultation Report (application ref: 5.1), indicates a generally positive acceptance of additional turbines within the seascape. As such it is considered that there is capacity for the AyM project to be accommodated at the proposed location in seascape, landscape and visual impact terms.
- 181 Please also refer to Section 6.14 of this document for further demonstration of compliance with landscape and seascape specific policies.
- 182 As noted in the context of alternatives, and recognised in the extant and draft NPS EN-3 the Applicant is constrained in its ability to avoid impacts on visual receptors. Notwithstanding this, the Applicant has undertaken a rigorous and comprehensive consultation process in order to refine the design and minimise harm as far as practicable whilst maintaining an economically viable alternative.

EN-1 Policy: Paragraph 5.9.9

National Parks, the Broads and AONBs have been confirmed by the Government as having the highest status of protection in relation to landscape and scenic beauty. Each of these designated areas has specific statutory purposes which help ensure their continued protection and which the [Examining Authority/SoS] should have regard to in its decisions. The conservation of the natural beauty of the landscape and countryside should be given substantial weight by the IPC in deciding on applications for development consent in these areas.

Nevertheless, the IPC may grant development consent in these areas in exceptional circumstances. The development should be demonstrated to be in the public interest and consideration of such applications should include an assessment of:

the need for the development, including in terms of national considerations, and the impact of consenting or not consenting it upon the local economy;

The cost of, and scope for, developing elsewhere outside the designated area or meeting the need for it in some other way, taking account of the policy on alternatives; and

any detrimental effect on the environment, the landscape and recreational opportunities, and the extent to which that could be moderated.

How has this been addressed?

- 183 In order to prioritise the conservation of the natural beauty of the landscape in accordance with paragraphs 5.9.9 and 10 of NPS EN1, no elements of the proposed AyM project are situated within areas having the highest status of protection (National Parks, the Broads and AONBs).
- 184 It is recognised that the offshore infrastructure is apparent from a number of viewpoints within the AONBs and Snowdonia National Park, and this has been concluded as resulting in significant effects with regards the EIA Regulations. As has been described elsewhere in this NPS (Section 5), there is a demonstrable and urgent need for renewable energy, and specifically offshore wind. The economic effects of the proposed project are considered to be beneficial, as has been concluded in the Socioeconomics Chapter of the ES, and as has been reflected in UK government publications; those benefits will also be subject to further consideration within the Supply Chain Plan which will be produced in support of the CfD bid and will secure local investment. The economic benefits and policy need should also be balanced against the significant costs to the economy of unmitigated climate change (as recognised in policy terms (UK Climate Change Risk Assessment 2022 Presented to Parliament pursuant to Section 56 of the Climate Change Act 2008)).

- 185 It is also relevant to consider the purpose of designated sites such as National Parks, which was to conserve and enhance their natural beauty and provide recreational opportunities for the public. Through repeat consultation events undertaken as part of the statutory and non-statutory processes for AyM it has been evident that there is limited public opposition to the proposed project, with the Consultation Report noting general support. The Applicant has sought to minimise all other potential impacts to recreational amenity associated with the AyM project, and has a long history supporting recreational amenity projects in North Wales such as the Green Links project which enhanced the North Wales coastal cycle path.
- 186 It is not feasible to locate the proposed project beyond the likely zone of visual impact from the AONBs or National Park, however the design of the project has been moderated such that the impacts are reduced. The Applicant has sought for example, to locate turbines outside of the zones of highest sensitivity as described in the White Consultants ready reckoner for siting of offshore wind projects document (White et al., 2019a); it is of note that if Wales is to develop offshore wind and meet the Welsh Government and UK Government targets the White Consultants ready reckoner document, and subsequent stage 2 and 3 documents (White et al., 2019b and 2019c) effectively renders the targets unachievable and in itself will therefore fail key policy requirements.
- 187 Therefore, whilst the Applicant recognises the potentially significant visual effects that may be realised on the AONB and National Park, those effects and any associated harm have been moderated and minimised as far as practicable and should be weighed against the cost of development elsewhere (which would not be supported in The Crown Estate policy terms), combined with the opportunity cost to the economy and the material climate cost of inaction.

6.5.2 National Policy Statement: NPS EN-3

EN-3 Policy: Paragraph 2.4.2

Proposals for renewable energy infrastructure should demonstrate good design in respect of landscape and visual amenity, and in the design of the project to mitigate impacts such as noise and effects on ecology.

How has this been addressed?

- 188 Proposals for minimising the effects on landscape and visual amenity from the onshore infrastructure are set out in the OLEMP. Design considerations are set out in the Design Principles Document (application ref: 8.8).

6.5.3 Considerations for the Secretary of State

- 189 As set out above, AyM has considered design throughout the development of the project and has provided details of that process as part of the Application.
- 190 The PA2008Section 183 requires that regard is had to the desirability of achieving good design.
- 191 The current NPS EN-1 states that *“given the importance which the Planning Act 2008 places on good design and sustainability, the IPC needs to be satisfied that energy infrastructure developments are sustainable and, having regard to regulatory and other constraints, are as attractive, durable and adaptable including taking account of natural hazards such as flooding) as they can be.”*
- 192 Where appropriate, climate change resilience and flooding has been factored into the ES and design choices, particularly when identifying onshore substation locations.
- 193 Furthermore, *“the [Secretary of State] should satisfy itself that the applicant has taken into account both functionality (including fitness for purpose and sustainability) and aesthetics (including its contribution to the quality of the area in which it would be located) as far as possible. Whilst the applicant may not have any or very limited choice in the physical appearance of some energy infrastructure, there may be opportunities for the applicant to demonstrate good design in terms of siting relative to existing landscape character, landform and vegetation. Furthermore, the design and sensitive use of materials in any associated development such as electricity substations will assist in ensuring that such development contributes to the quality of the area.”*

- 194 The design of offshore wind turbines and other offshore infrastructure such as offshore substations and meteorological masts have very limited scope in terms of physical appearance. However, consideration has been had with regard to the siting of turbines, for example by ensuring that the turbine placement avoids the areas of highest sensitivity, by reducing the westerly spread of turbines following consultation undertaken between the scoping and PEIR phases. Following Section 42 consultation, further good design principles were applied with the Project scaling back the western extent of the array to an even greater degree. This reduction has achieved a net reduction of the developable area from 107km² to 78km², and from a maximum design of 107 proposed WTGs down to a maximum design 50 WTGs. The result is a reduction in effect from particular viewpoints at the western margin of the zone of theoretical visibility of the project.
- 195 For the onshore infrastructure, a key design choice made at the start of the project was the decision to install cables underground rather than overhead lines to convey electricity from the offshore wind farm to the onshore substation. Further consideration has been had when proposing laying of cables, identifying potential reinstatement measures and enhancements for the surrounding area.
- 196 The onshore substation does lead to some significant visual effects (as assessed in the Landscape and Visual Impact ES Chapter (application ref: 6.3.2), but these have been minimised as far as practical during the site selection process, by seeking to identify substation locations that benefit from existing screening. The onshore substation is located in an area where significant effects are not avoidable, and as such proposals for additional screening and planting is set out in the OLEMP and Design Principles Document, which would provide mitigation and enhancements to the local area and reduce the significance of effect in the long term and incrementally during the initial period of planting establishment.
- 197 Good design has been considered throughout the development of AyM and has been incorporated into the site selection, project design evolution and set out in the mitigation proposals included in the Application. This demonstrates compliance with the tests set out in the Planning Act (2008) and the NPPs.

- 198 The principle of good design has been incorporated within the design of the project and forms part of the overall package of the benefits AyM delivers when considering the planning balance.

6.6 Marine geology, oceanography and physical processes

- 199 This topic is assessed in Volume 2, Chapter 2 (Marine Geology, Oceanography and Physical Processes) of the ES (application ref: 6.2.2).

6.6.1 National Policy Statement: NPS EN-1

EN-1 Policy: Paragraph 5.5.6

Where relevant, applicants should undertake coastal geomorphological and sediment transfer modelling to predict and understand impacts and help identify relevant mitigating or compensatory measures.

How has this been addressed?

- 200 Predictions of change to physical processes that could arise from construction, O&M and decommissioning of AyM are presented in Sections 10 and 12 of the ES Chapter.

EN-1 Policy: Paragraph 5.5.7

- 201 The Environmental Statement should include an assessment of the effects on the coast. In particular, applicants should assess:
- ▲ The impact of AyM on coastal processes and geomorphology, including by taking account of potential impacts from climate change. If the development will have an impact on coastal processes the applicant must demonstrate how the impacts will be managed to minimise adverse impacts on other parts of the coast;
 - ▲ • The implications of the proposed project on strategies for managing the coast as set out in Shoreline Management Plans (SMPs), any relevant Marine Plans...and capital programmes for maintaining flood and coastal defences;
 - ▲ • The effects of AyM on marine ecology, biodiversity and protected sites;

- ▲ • The effects of the AyM on maintaining coastal recreation sites and features; and
- ▲ • The vulnerability of the proposed development to coastal change, taking account of climate change, during the project's operational life and any decommissioning period.

How has this been addressed?

- 202 The impact of the proposed project on coastal processes and geomorphology is considered in Sections 10, 11 and 12 of the ES Chapter for the construction, operations and maintenance (O&M) and decommissioning phases respectively. The implications of the proposed project on strategies for managing the coast are considered within the landfall assessment, presented in Volume 4, Annex 2-1: Marine Geology, Oceanography and Physical Processes Technical Annex (application ref: 6.4.2.1).
- 203 The effects of the proposed project on marine ecology, biodiversity and protected sites are set out elsewhere in the ES, in particular in Volume 2, Chapter 5: Benthic Ecology (application ref: 6.2.5).
- 204 The effects of the proposed project on maintaining coastal recreation sites and features are set out in Volume 2, Chapter 11: Other Marine Users (application ref: 6.2.11).
- 205 The vulnerability of the proposed development to coastal change is considered in the context of landfall infrastructure, in Volume 4, Annex 2-1: Marine Geology, Oceanography and Physical Processes Technical Annex (application ref: 6.4.2.1).

EN-1 Policy: Paragraph 5.5.9

The applicant should be particularly careful to identify any effects of physical changes on the integrity and special features of Marine Conservation Zones (MCZs), candidate marine Special Areas of Conservation (cSACs), coastal SACs and candidate coastal SACs, coastal Special Protection Areas (SPAs) and potential Sites of Community Importance (SCIs) and Sites of Special Scientific Interest (SSSI).

How has this been addressed?

- 206 Designated nature conservation sites within the physical processes study area have been described in Section 7 of the ES Chapter for the array area and for the offshore ECC. The predicted changes to physical processes have been considered in relation to indirect effects on other receptors elsewhere in the ES, in particular in Volume 2, Chapter 5: Benthic Ecology and within the RIAA.

EN-1 Policy: Section 4.8

The resilience of the project to climate change (such as increased storminess) should be assessed in the Environmental Statement accompanying an application.

How has this been addressed?

- 207 Potential changes in climate are described in the existing environment section (Section 7 of the ES Chapter) and are considered alongside predicted changes described in the assessment sections (Section 10).

6.6.2 National Policy Statements: NPS EN-3

EN-3 Policy: Paragraph 2.6.81

An assessment of the effects of installing cable across the intertidal zone should include information, where relevant, about:

- Any alternative landfall sites that have been considered by the applicant during the design phase and an explanation for the final choice;*
- Any alternative cable installation methods that have been considered by the applicant during the design phase and an explanation for the final choice;*
- Potential loss of habitat;*
- Disturbance during cable installation and removal (decommissioning);*
- Increased suspended sediment loads in the intertidal zone during installation; and*
- Predicted rates at which the intertidal zone might recover from temporary effects.*

How has this been addressed?

- 208 Details regarding alternative landfall sites that have been considered during the design phase and an explanation for the final choice are provided in Volume 1, Chapter 4: Site Selection and Alternatives (application ref: 6.1.4). As set out in Section 3 of this Planning Statement, two cable installation methodologies at the landfall have been fully assessed and this optionality is included as part of the Application.
- 209 Assessment of the potential loss of habitat and disturbance during cable installation and removal, as well as expected rates of recovery, are set out in Volume 2, Chapter 5 (Benthic, Subtidal and Intertidal Ecology (application ref: 6.2.5)) and in the RIAA.
- 210 Suspended sediment loads during installation have been assessed in the Marine Water and Sediment Quality ES Chapter (application ref: 6.2.3)
- 211 Predictions of change to physical processes that could arise from the construction, and O&M of AyM are presented in Sections 10 and 11 of the ES Chapter respectively. A cable landfall assessment is also presented in Volume 4, Annex 2-1: Marine Geology, Oceanography and Physical Processes Technical Annex (application ref: 6.4.2.1). This assessment considers the nature of ongoing shoreline change at the landfall and the potential for cables and other project infrastructure to impact coastal processes.

EN-3 Policy: Paragraph 2.6.113

Where necessary, assessment of the effects on the subtidal environment should include:

Environmental appraisal of array and cable routes and installation methods;

Habitat disturbance from construction vessels' extendible legs and anchors;

Increased suspended sediment loads during construction; and

Predicted rates at which the subtidal zone might recover from temporary effects.

How has this been addressed?

- 212 Predictions of change to physical processes that could arise from the construction, O&M and decommissioning of AyM are presented in the Physical processes Chapter.
- 213 Assessment of the potential effects on subtidal ecology and disturbance during cable installation and removal, as well as expected rates of recovery, are set out in Volume 2, Chapter 5 (Benthic, Subtidal and Intertidal Ecology). This includes consideration of the effects of jack-up barge legs and vessel anchor spreads, as described in the Project Description (Offshore) ES Chapter (application ref: 6.2.1).
- 214 Details regarding alternative landfall sites that have been considered during the design phase and an explanation for the final choice are provided in Volume 1, Chapter 4: Site Selection and Alternatives.

EN-3 Policy: Paragraph 2.6.190

Assessment should be undertaken for all stages of the lifespan of the proposed wind farm in accordance with the appropriate policy for offshore wind farm EIAs.

How has this been addressed?

- 215 The impact of the proposed project on coastal processes and geomorphology is considered in the ES Chapter under Section 10 (for the construction phase), Section 11 (for the O&M phase) and Section 12 onwards (for the decommissioning phase).

EN-3 Policy: Paragraph 2.6.191 and 2.6.192

The Applicant should consult the Environment Agency, Marine Management Organisation (MMO) and Centre for Environment, Fisheries and Aquaculture Science (Cefas) on methods for assessment of impacts on physical processes.

How has this been addressed?

- 216 Consultation on approach to assessment for physical processes has been carried out with Natural Resources Wales and other stakeholders throughout the scoping, PEIR and Evidence Plan consultation processes. Details of the approach to consultation are provided in Table 2.2 in the ES Chapter.

EN-3 Policy: Paragraph 2.6.192

Mitigation measures which the [Secretary of State] should expect the applicants to have considered include the burying of cables to a necessary depth and using scour protection techniques around offshore structures to prevent scour effects around them. Applicants should consult the statutory consultees on appropriate mitigation.

How has this been addressed?

- 217 Embedded mitigation relating to cable burial and scour are set out in section 2.9 of the ES Chapter which makes reference to the requirement to produce a cable burial risk assessment (subject to this requirement being a condition of a Marine Licence). Use of scour protection and methods of cable protection are set out in the Project Description (Offshore) as assessed throughout the Volume 2 (Offshore) of the ES. Consultation has been undertaken and is ongoing with statutory consultees and other interested parties.

EN-3 Policy: Paragraph 2.6.193

Geotechnical investigations should form part of the assessment as this will enable the design of appropriate construction techniques to minimise any adverse effects.

How has this been addressed?

- 218 Geotechnical data has informed the assessment and project design of AyM. Details are provided in Table 2.4 in the ES Chapter.

EN-3 Policy: Paragraph 2.6.194

The assessment should include predictions of the physical effect that will result from the construction and operation of the required infrastructure and include effects such as the scouring that may result from the proposed development.

How has this been addressed?

- 219 Predictions of change to physical processes that could arise from the construction, and O&M of AyM are presented in the ES Chapter.

6.6.3 Other Policy Considerations

- 220 No other relevant planning policy was identified for this topic.

221 Paragraph 4.1.6 of EN-1 requires that *'The [Secretary of State] must have regard to the MPS and applicable marine plans in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area. In the event of a conflict between any of these marine planning documents and an NPS, the NPS prevails for purposes of [Secretary of State] decision making given the national significance of the infrastructure'*.

222 AyM is located within the WNMP Area. With regards physical processes the plan notes that cumulative effects may prove significant if there is interaction between two or more pressures. Section 12 of the ES Chapter considers cumulative effects, and notes that significant adverse effects have been avoided. This therefore accords with sub paragraph 1 of GOV_01: Cumulative effects which states:

Proposals should demonstrate that they have assessed potential cumulative effects and should, in order of preference:

a. avoid adverse effects; and/or

b. minimise effects where they cannot be avoided; and/or

c. mitigate effects where they cannot be minimised.

If significant adverse effects cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

Proposals that contribute to positive cumulative effects are encouraged

6.6.4 Considerations for the Secretary of State

223 As set out above, AyM has had full regard to the relevant sections of NPSs EN-1 and EN-3 when carrying out the assessment of impacts on marine physical processes.

- 224 Paragraph 5.5.11 of EN-1 states that *the [Secretary of State] should not normally consent new development in areas of dynamic shorelines where the proposal could inhibit sediment flow or have an adverse impact on coastal processes at other locations. Impacts on coastal processes must be managed to minimise adverse impacts on other parts of the coast. Where such proposals are brought forward consent should only be granted where the [Secretary of State] is satisfied that the benefits (including need) of the development outweigh the adverse impacts.*
- 225 The assessment concludes that the effect of the project on coastal processes would be negligible to minor adverse which is not significant in EIA terms. Minor adverse effects are predicated for construction and decommissioning activities but are short term and local in scale. Minor adverse effects from cable laying and protection will be controlled through conditions requiring approval of an assessment of cable burial depths and a cable installation method statement. Therefore, the effects on coastal processes do not weigh against the substantial benefits of the scheme.
- 226 Paragraph 2.6.195 of EN-3 considers that *"The direct effects on the physical environment can have indirect effects on a number of other receptors. Where indirect effects are predicted, the [Secretary of State] should refer to relevant Sections of this NPS and EN-1."* The predicted changes to the physical environment have been considered in relation to indirect effects on other receptors elsewhere in the ES, in particular within Volume 2, Chapter 5: Benthic Ecology and in Volume 2, Chapter 3: Marine Water and Sediment Quality.
- 227 EN-3 Policy: Paragraph 2.6.196 sets out that *"the methods of construction, including use of materials should be such as to reasonably minimise the potential for impact on the physical environment"* and that *"Mitigation measures which the [Secretary of State] should expect the applicants to have considered include the burying of cables to a necessary depth and using scour protection techniques around offshore structures to prevent scour effects around them. Applicants should consult the statutory consultees on appropriate mitigation."*

- 228 AyM has proposed designs and installation methods that seek to minimise significant adverse effects on the physical environment where possible; this includes avoidance of the Constable Bank feature in response to stakeholder feedback. Where necessary, the assessment has set out mitigation to avoid or reduce significant adverse effects. Details of construction methods including cable burial are expected to be included in any Marine Licence. In order to assist in understanding how the DCO and Marine Licence(s) would operate together the Applicant has submitted a "Consents and Licences required under other legislation" document, which includes an annex presenting an Outline approach to Marine Licencing (application ref: 5.4 and 5.4.1 respectively).
- 229 Part 5.5 of EN-1 sets out matters relevant to Coastal Change at a national level. It is recognised that "*The Government's aim is to ensure that our coastal communities continue to prosper and adapt to coastal change*". It is recognised in EN-1 that producing the energy required by the UK, significant infrastructure will be required, including large scale projects.
- 230 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.1.6 requires that the following matters relevant to Marine Geology, Oceanography and Physical Processes are taken into account when considering any proposed development:
- 231 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to "*environmental, social and economic benefits and adverse impacts, at national, regional and local levels*".
- 232 Paragraphs 5.5.10 to 5.5.16 of NPS EN-1 set out matters the Secretary of State should have regard to in reaching a decision. This includes, *inter alia*, proposed mitigation, specifically in respect of matters relating to marine processes. It is confirmed that the Secretary of State should be satisfied that the proposed development will be resilient to coastal erosion and deposition, taking account of climate change, during the project's operational life and any decommissioning period.

- 233 Table 22 of Volume 2, Chapter 2: Marine Geology, Oceanography and Physical Processes of the Environmental Statement provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, O&M phase, and decommissioning phase.
- 234 The assessment of Marine Geology, Oceanography and Physical Processes has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and been carried out in accordance with those requirements.
- 235 The construction, operation and decommissioning of AyM will be in accordance with the relevant NPSs and other identified material planning policy matters. The environmental assessment carried out demonstrates that effects on Marine Geology, Oceanography and Physical Processes should not weigh against the substantial benefits of AyM when considering the planning balance.

6.7 Marine Water and Sediment Quality

- 236 This topic is assessed in Volume 2, Chapter 4 (Marine Water and Sediment Quality) of the ES (application ref: 6.2.3).

6.7.1 National Policy Statements: NPS EN-1

EN-1 Policy: Paragraph 5.15.3

The ES should in particular describe:

The existing quality of waters affected by the proposed project, and the impacts of the proposed project on water quality, noting any relevant existing discharges proposed new discharges and proposed changes to discharges;

Existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the proposed project and any impact of physical modifications to these characteristics; and any impacts of the proposed project on waterbodies or protected areas under the Water Framework Directive (WFD).

How has this been addressed?

- 237 A baseline of the existing water quality for the area which may be affected by the proposed activities is presented in section 3.7 of the ES Chapter. The impacts of the proposed activities on marine water quality are assessed in sections 3.10 to 3.14 of the ES Chapter. There will be no proposed changes or new discharges as a result of AyM. A full WFD assessment is presented in Volume 4, Annex 3-1: Water Framework Directive (application ref: 6.4.3.1) which details the impacts on coastal and transitional waterbodies and protected areas under WFD. Potential changes to the physical environment, including hydrodynamics, waves and sediment pathways, are presented in Volume 2, Chapter 2: Marine Geology, Oceanography and Physical Processes.

6.7.2 National Policy Statements: NPS EN-3

EN-3 Policy: Paragraph 5.15.2

Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment as part of the Environmental Statement or equivalent.

How has this been addressed?

- 238 Sections 3.10 to 3.14 of the ES Chapter present the assessment of the proposed development on water quality. An assessment of the physical characteristics is presented in Volume 2, Chapter 2: Marine Geology, Oceanography and Physical Processes (application ref: 6.2.2). An assessment of fresh water resources and quality is presented in Volume 3, Chapter 7: Hydrology, Hydrogeology and Flood Risk (application ref: 6.3.7).

6.7.3 Other Policy Considerations

- 239 No other policy considerations were identified for marine water and sediment quality.

240 AyM is located within the WNMP Area. With regards water quality the plan notes in particular that cumulative effects may prove significant if there is interaction between two or more pressures. Section 14 of the ES Chapter considers impacts to marine ecosystems, in the context of marine water and sediment quality, and cumulative effects, and notes that significant adverse effects have been avoided. This therefore accords with sub paragraph 1 of GOV_01: Cumulative effects, ENV_01: Resilient Marine Ecosystems, and ENV_06: Air and Water Quality which state that proposals should demonstrate that they have assessed potential impacts on marine ecosystems and cumulative effects and should, in order of preference:

a. avoid adverse effects; and/or

b. minimise effects where they cannot be avoided; and/or

c. mitigate effects where they cannot be minimised.

If significant adverse effects cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

6.7.4 Considerations for the Secretary of State

241 Paragraphs 5.15.2 to 5.15.3 of EN-1 set out a series of principles that will be taken into account when reaching a decision on marine water quality. EN-1 (5.15.3) requires an assessment of the proposed project on water quality and considerations of the proposed project on waterbodies or protected areas under the WFD.

242 The assessment of Water Quality and Sediment Quality has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.

243 Table 14 of Volume 2, Chapter 3: Water Quality and Sediment Quality (application ref: 6.2.3) of the ES provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, O&M phase, and decommissioning phase. No significant effects in EIA terms have been identified. A full WFD assessment is presented in Volume 4, Annex 3-1: Water Framework Directive (application ref: 6.4.3.1) which details the impacts on coastal and transitional waterbodies and protected areas under WFD.

- 244 The construction, operation and decommissioning of AyM will be in accordance with the relevant NPSs and other identified material planning policy matters.
- 245 The environmental information and assessment carried out for AyM concludes that there are no significant effects and therefore effects on marine water and sediment quality should not weigh against the substantial benefits of AyM when considering the planning balance.

6.8 Offshore Ornithology

- 246 This topic is assessed in Volume 2, Chapter 4 (Offshore Ornithology) of the ES (application ref: 6.2.4).

6.8.1 National Policy Statements: NPS EN-1

EN-1 Policy

- 247 NPS EN-1 requires the Environmental Impact Assessment (EIA) to include effects on, opportunities to enhance and mitigation for biodiversity.

How has this been addressed?

- 248 Potential effects, opportunities and mitigation on offshore ornithological receptors are considered through the assessment in Sections 4.11 to 4.14 of the ES Chapter.

6.8.2 National Policy Statements: NPS EN-3

EN-3 Policy: Paragraphs 2.6.102 - 105

- 249 NPS EN-3 requires the EIA to include all project stages, consultation over surveys and Collision Risk Model (CRM).

How has this been addressed?

- 250 Potential effects at all stages and CRM are addressed in the assessment in Sections 4.11 to 4.14 of this ES Chapter, and consultation over surveys in Section 4.3 of the ES Chapter.

6.8.3 Other Policy Considerations

251 AyM is located within the WNMP Area. With regards physical processes the plan notes in particular that cumulative effects may prove significant if there is interaction between two or more pressures. Section 14 of the ES Chapter considers impacts to marine ecosystems, in the context of offshore ornithology, and cumulative effects, and notes that significant adverse effects have been avoided. This therefore accords with sub paragraph 1 of GOV_01: Cumulative effects, and ENV_01: Resilient Marine Ecosystems, which state that proposals should demonstrate that they have assessed potential impacts on marine ecosystems and cumulative effects and should, in order of preference:

a. avoid adverse effects; and/or

b. minimise effects where they cannot be avoided; and/or

c. mitigate effects where they cannot be minimised.

If significant adverse effects cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

How has this been addressed?

252 Potential effects on, opportunities and mitigation for offshore ornithological receptors considered through the assessment in Sections 4.11 to 4.14 of the ES Chapter.

6.8.4 Considerations for the Secretary of State

253 Part 5.3 of EN-1 sets out the policy for the Secretary of State in relation to generic biodiversity impacts. Paragraphs 2.6.58 to 2.6.71 of NPS EN-3 sets out offshore wind-specific biodiversity policy.

254 It is recognised in EN-1 that producing the energy required by the UK, significant infrastructure will be required, including large scale projects.

255 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.1.6 requires that the following matters are taken into account when considering any proposed development:

- 256 *'The [Secretary of State] must have regard to the MPS and applicable marine plans in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area. In the event of a conflict between any of these marine planning documents and an NPS, the NPS prevails for purposes of [Secretary of State] decision making given the national significance of the infrastructure'.*
- 257 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts, at national, regional and local levels"*.
- 258 Paragraph 2.6.106 of EN-3 relates to the Secretary of State's decision-making, and sets out that:
- 259 *'In addition to Section 5.3 of EN-1 the offshore wind-specific biodiversity considerations set out in paragraphs 2.6.58 to 2.6.71 above should inform [Secretary of State] decision making'.*
- 260 The requirements of the aforementioned paragraphs (specifically 2.6.68 to 2.6.71) have been assessed and are presented in Table 4.40 of Volume 2, Chapter 4: Offshore Ornithology of the Environmental Statement. Table 4.40 provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, O&M phase, and decommissioning phase.
- 261 The assessment of Offshore Ornithology has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.
- 262 The construction, operation and decommissioning of AyM will be in accordance with the relevant NPSs and other identified material planning policy matters.
- 263 With the exception of minor to moderate adverse cumulative effects to red-throated diver, the environmental information and assessment carried out for AyM concludes that there are no significant effects with regards to the EIA Regulations, or effects that would be considered to be unacceptable or in conflict with regards to planning considerations.

- 264 Given that the minor to moderate cumulative effect on red-throated diver is an existing effect not one caused by AyM, the environmental assessment demonstrates that effects on offshore ornithology should not weigh against the substantial benefits of AyM when considering the planning balance.

6.9 Benthic Subtidal and Intertidal Ecology

- 265 This topic is assessed in Volume 2, Chapter 5 (Benthic Subtidal and Intertidal Ecology) of the ES (application ref: 6.2.5).

6.9.1 National Policy Statements: NPS EN-1

EN-1 Policy: Paragraphs 5.3.10 and 5.3.11

- 266 Sites of Special Scientific Interest (SSSIs) that are not incorporated within internationally designated sites should be provided with a high degree of protection. Where a proposed development within or outside a SSSI is likely to have an adverse effect on an SSSI (alone or together with other developments) development consent should not normally be granted. If after mitigation an adverse effect is still likely then consent should only be given where the benefits (including need) for a development outweigh the impacts on the SSSI in question and also the wider SSSI network. The Secretary of State (SoS) should use requirements and/ or planning obligations to mitigate the harmful aspects of the development, and where possible, ensure the conservation of the site's biodiversity or geological interest.

How has this been addressed?

- 267 The AyM site selection process has avoided direct interaction with all relevant SSSIs.

EN-1 Policy: Paragraph 5.3.12

The [Secretary of State] is bound by the duties in relation to Marine Conservation Zones (MCZs) imposed by sections 125 and 126 of the Marine and Coastal Access Act 2009.

How has this been addressed?

- 268 A MCZs have been avoided through the Site Selection and Alternatives process.

6.9.2 National Policy Statements: NPS EN-3

EN-3 Policy: Paragraph 2.6.64

Applicants should assess the effects on the offshore ecology and biodiversity for all stages of the lifespan of the proposed OWF.

How has this been addressed?

- 269 The potential effects associated with the construction, operation and decommissioning of AyM have been assessed in section 5.10 - 5.12 of the Chapter.

EN-3 Policy: Paragraph 2.6.65

Consultation on the assessment methodologies should be undertaken at an early stage with the statutory consultees as appropriate.

How has this been addressed?

- 270 Consultation has been undertaken through the scoping process and is ongoing with the relevant consultees through the Evidence Plan process (Table 3) in the ES Chapter.

EN-3 Policy: Paragraph 2.6.66

Any relevant data that has been collected as part of post-construction ecological monitoring from existing, operational OWFs should be referred to where appropriate.

How has this been addressed?

- 271 Relevant data collected as part of post-construction monitoring from other OWFs (primarily GyM) has informed the assessment of AyM (section 5.7 and within sections 5.10 - 5.12) of the Chapter. The Marine Management Organisation (MMO) has produced a review (MMO, 2012) on post-construction monitoring that has been undertaken for OWFs within which it is noted that there have been limited effects arising on benthic communities from certain impacts. Where appropriate the Chapter cross refers to those studies either individually or through reference to the MMO review.

EN-3 Policy: Paragraph 2.6.67

Applicants should assess the potential for the scheme to have both positive and negative effects on marine ecology and biodiversity.

How has this been addressed?

- 272 Both the positive and negative effects of AyM have been assessed in sections 5.10 - 5.12 of the Chapter.

EN-3 Policy: Paragraphs 2.6.113 and 2.6.81

Applicants should assess the effects on the subtidal environment from habitat loss due to foundations and seabed preparation, predicted scour, scour protection and altered sedimentary processes and effects on the intertidal zone.

How has this been addressed?

- 273 The assessment has considered effects from all development phases on benthic and intertidal habitats and species in the vicinity of AyM. These assessments included all likely effects from temporary and long-term habitat loss and the effects of changes in physical processes in sections 5.10 - 5.12 of the Chapter.

EN-3 Policy: Paragraphs 2.6.113 and 2.6.81

Applicants should assess the effects on the benthic environment from extendible legs and anchors of construction vessels and habitat disturbance in the intertidal zone during cable installation and removal (decommissioning).

How has this been addressed?

- 274 The AyM assessment has considered the effects of benthic and intertidal disturbances throughout the whole of the development (sections 5.10 - 5.12), with specific reference to construction vessels and anchors in paragraph 122 *et seq* and habitat disturbance within the intertidal zone in paragraph 171 *et seq*.

EN-3 Policy: Paragraphs 2.6.113 and 2.6.81

Applicants should assess the effects of increased suspended sediment loads during construction on subtidal habitats and intertidal habitats.

How has this been addressed?

- 275 Specific effects of increased suspended sediment load and the associated sediment deposition on benthic and intertidal ecology have been assessed with regards to the construction phase (paragraph 152 *et seq*).

EN-3 Policy: Paragraphs 2.6.113 and 2.6.81

Applicants should assess the predicted rates for subtidal habitat recovery (paragraph 2.6.113) and intertidal habitats (paragraph 2.6.81).

How has this been addressed?

- 276 The likely rates of recovery of benthic and intertidal habitats/species have been presented for each impact discussed, based on the recorded recovery of the local area (and the same habitats and species) from the GyM post-construction benthic surveys (CMACs, 2018) and have been used to inform the assessment of the significance of the effect.

EN-3 Policy: Paragraph 2.6.114

If it is proposed to install offshore cables to a depth of at least 1.5 metres below the seabed, the Applicant should not have to assess the effects of the cables on intertidal and subtidal habitat during the operational phase of the OWF.

How has this been addressed?

- 277 The target burial depth below the long-term stable seabed level of between 0 - 3 metres, is anticipated for the majority of the offshore ECC, as such, the effects of Electromagnetic Fields (EMF) on benthic or intertidal receptors are assessed in paragraphs 223 *et seq.*

6.9.3 Other Policy Considerations

- 278 AyM is located within the WNMP Area. With regards benthic ecology, the plan notes in particular that cumulative effects may prove significant if there is interaction between two or more pressures. Section 14 of the ES Chapter considers impacts to marine ecosystems, in the context of marine water and sediment quality, and cumulative effects, and notes that significant adverse effects have been avoided. This therefore accords with sub paragraph 1 of GOV_01: Cumulative effects, and ENV_01: Resilient Marine Ecosystems which state that proposals should demonstrate that they have assessed potential impacts on marine ecosystems and cumulative effects and should, in order of preference:

a. avoid adverse effects; and/or

b. minimise effects where they cannot be avoided; and/or

c. mitigate effects where they cannot be minimised.

If significant adverse effects cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

- 279 No other policy considerations have been identified for benthic and intertidal ecology.

6.9.4 Considerations for the Secretary of State

- 280 Part 5.3 of EN-1 sets out matters relevant to Biodiversity and geological conservation at national level. It is recognised that 'Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and the complex ecosystems of which they are a part'. It is recognised in EN-1 that producing the energy required by the UK, significant infrastructure will be required, including large scale projects.

281 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.1.6 requires that the following matters relevant to benthic subtidal and intertidal ecology are taken into account when considering any proposed development:

'The [Secretary of State] must have regard to the MPS and applicable marine plans in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area. In the event of a conflict between any of these marine planning documents and an NPS, the NPS prevails for purposes of [Secretary of State] decision making given the national significance of the infrastructure'.

282 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts, at national, regional and local levels"*.

283 Paragraph 2.6.68 of NPS EN-3 sets out matters the Secretary of State should have regard to in reaching a decision. The Secretary of State should consider the effects of a proposal on marine ecology and biodiversity taking into account all relevant information made available to it. Paragraphs 2.6.84 to 2.6.87 and 2.6.115 to 2.6.118 of NPS EN-3 set out matters the Secretary of State should have regard to when considering impacts on subtidal and intertidal environments.

284 Table 18 of Volume 2, Chapter 5: Benthic Subtidal and Intertidal Ecology of the ES provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, O&M phase, and decommissioning phase.

285 The assessment of Benthic Subtidal and Intertidal Ecology has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.

286 The construction, operation and decommissioning of AyM will be in accordance with the relevant NPSs and other identified material planning policy matters. The environmental information and assessment carried out for AyM demonstrate that there is no conflict with any of the conditions set out by the NPSs which would lead to a refusal of development consent on Benthic Subtidal and Intertidal Ecology grounds.

287 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regards to the EIA Regulations and therefore demonstrates that effects on benthic, subtidal and intertidal ecology should not weigh against the substantial benefits of AyM when considering the planning balance.

6.10 Fish and Shellfish Ecology

288 This topic is assessed in Volume 2, Chapter 6 (Fish and Shellfish Ecology) of the ES (application ref: 6.2.6).

6.10.1 National Policy Statements: NPS EN-1

289 No relevant policy requirements for fish and shellfish ecology have been identified in EN-1.

6.10.2 National Policy Statements: NPS EN-3

EN-3 Policy: Paragraph 2.6.64

290 Assessment of offshore ecology and biodiversity should be undertaken by the applicant for all stages of the lifespan of the proposed Offshore Wind Farm (OWF) and in accordance with the appropriate policy for OWF EIAs.

How has this been addressed?

291 The AyM assessment considers effects on fish and shellfish receptors at all stages of the lifespan of the project, including the construction, O&M and maintenance, and decommissioning phases (see sections 6.10, 6.11 and 6.12 *et seq*).

EN-3 Policy: Paragraph 2.6.65

Consultation on the assessment methodologies should be undertaken at early stages with the statutory consultees as appropriate.

How has this been addressed?

- 292 Consultation with relevant statutory and non-statutory stakeholders has been carried out from the early stages of AyM (see Table 4 of the Fish and Shellfish Ecology Chapter for a summary of consultation with regard to fish and shellfish).

EN-3 Policy: Paragraph 2.6.66

Any relevant data that has been collected as part of post-construction ecological monitoring from existing, operational OWFs should be referred to where appropriate.

How has this been addressed?

- 293 Relevant data collected as part of post-construction monitoring from other OWF projects, notably GyM has informed the assessment of AyM (see section 6.7 et seq).

EN-3 Policy: Paragraph 2.6.67

The assessment should include the potential of the scheme to have both positive and negative effects on marine ecology and biodiversity.

How has this been addressed?

- 294 The assessment methodology includes the provision for assessment of both positive and negative effects (see Table 8 in the Fish and Shellfish Ecology Chapter).

EN-3 Policy: Paragraph 2.6.74

The applicant should identify fish species that are the most likely receptors of impacts with respect to:

- *Spawning grounds;*
- *Nursery grounds;*
- *Feeding grounds;*
- *Over-wintering areas for crustaceans; and*
- *Migration routes.*

How has this been addressed?

- 295 Particular attention has been given to impacts on fish species at key life stages such as during spawning or on known nursery habitats (see section 6.7 *et seq*).

EN-3 Policy: Paragraph 2.6.68

The Secretary of State should consider the effects of a proposal on marine ecology and biodiversity taking into account all relevant information made available to it.

How has this been addressed?

- 296 This has been described and considered throughout the assessment of the potential effects associated with AyM.

EN-3 Policy: Paragraph 2.6.69

The designation of an area as Natura 2000 site does not necessarily restrict the construction or operation of OWFs in or near that area (see also Section 4.3 of EN-1).

How has this been addressed?

- 297 Natura 2000 sites have been considered during the AyM assessment, the conclusions of which are provided within the RIAA (application ref: 5.1).

EN-3 Policy: Paragraph 2.6.70

Mitigation may be possible in the form of careful design of the development itself and the construction techniques employed.

How has this been addressed?

- 298 Mitigation has been considered during the design and development of AyM (see Table 11 of the Fish and Shellfish Ecology Chapter).

EN-3 Policy: Paragraph 2.6.71

Ecological monitoring is likely to be appropriate during the construction and operational phases to identify the actual impact itself so that, where appropriate, adverse effects can then be mitigated and to enable further useful information to be published relevant to future projects.

How has this been addressed?

- 299 Where appropriate, and through reference to the MMO's review of post-construction monitoring (MMO, 2012) monitoring has been considered during the assessment of potential effects associated with AyM.

EN-3 Policy: Paragraph 2.6.75

Where it is proposed that mitigation measures of the type set out in paragraph 2.6.76 below are applied to offshore export cables to reduce Electromagnetic Fields (EMF) the residual effects of EMF on sensitive species from cable infrastructure during operation are not likely to be significant. Once installed, operational EMF impacts are unlikely to be of sufficient range or strength to create a barrier to fish movement.

How has this been addressed?

- 300 EMF effects are considered within the AyM assessment (see section 6.11.4 et seq).

EN-3 Policy: Paragraph 2.6.76

- 301 EMF during operation may be mitigated by use of armoured cable for inter-array and export cables which should be buried at a sufficient depth. Some research has shown that where cables are buried at depths greater than 1.5 m below the seabed impacts are likely to be negligible. However, sufficient depth to mitigate impacts will depend on the geology of the seabed.

How has this been addressed?

- 302 Mitigation of EMF through cable burial (and cable armouring, where appropriate) is considered within the AyM EIA (see Table 11).

EN-3 Policy: Paragraph 2.6.77

During construction, 24 hour working practices may be employed so that the overall construction programme and the potential for impacts to fish communities is reduced in overall time.

How has this been addressed?

- 303 The duration of the proposed works is given due weight within the AyM assessment process (see section 6.10.1).

6.10.3 Other Policy Considerations

- 304 AyM is located within the WNMP Area. With regards fish and shellfish, the plan notes in particular that cumulative effects may prove significant if there is interaction between two or more pressures. Section 14 of the ES Chapter considers impacts to marine ecosystems, in the context of marine water and sediment quality, and cumulative effects, and notes that significant adverse effects have been avoided. This therefore accords with sub paragraph 1 of GOV_01: Cumulative effects, and ENV_01: Resilient Marine Ecosystems which state that proposals should demonstrate that they have assessed potential impacts on marine ecosystems and cumulative effects and should, in order of preference:

a. avoid adverse effects; and/or

b. minimise effects where they cannot be avoided; and/or

c. mitigate effects where they cannot be minimised.

If significant adverse effects cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

- 305 Further to this the WNMP notes with specific reference to fish and shellfish that:

ENV_07: Fish Species and Habitats Proposals potentially affecting important feeding, breeding (including spawning & nursery) and migration areas or habitats for key fish and shellfish species of commercial or ecological importance should demonstrate how they, in order of preference:

a. avoid adverse impacts on those areas; and/or

b. minimise adverse impacts where they cannot be avoided; and/or

c. mitigate adverse impacts where they cannot be minimised.

If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding

ENV_05: Underwater noise Proposals should demonstrate that they have considered man-made noise impacts on the marine environment and, in order of preference:

a. avoid adverse impacts; and/or

b. minimise impacts where they cannot be avoided; and/or

c. mitigate impacts where they cannot be minimised.

If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

306 Through the iterative design process, the AyM assessment has optimised the design and reduced the number of turbines from an initially proposed 107 WTGs to a maximum design scenario of 50 WTGs. This has minimised impacts associated with loss of spawning and nursery habitat and underwater noise as far as practicable by reducing the spatial and temporal maximum design scenario for fish (see section 6.10 *et seq*).

307 No other relevant policy considerations were identified for fish and shellfish ecology.

6.10.4 Considerations for the Secretary of State

308 Part 5.3 of EN-1 sets out the policy for the Secretary of State in relation to generic biodiversity impacts. Paragraphs 2.6.58 to 2.6.71 of NPS EN-3 sets out offshore wind-specific biodiversity policy. In addition, there are specific considerations set out in EN-3 (2.6.73) which apply to the effect of offshore wind energy infrastructure proposals on fish and shellfish as set out below:

'There is potential for the construction and decommissioning phases, including activities occurring both above and below the seabed, to interact with seabed sediments and therefore have the potential to impact fish communities, migration routes, spawning activities and nursery areas of particular species. In addition, there are potential noise impacts, which could affect fish during construction and decommissioning and to a lesser extent during operation'.

309 It is recognised in EN-1 that producing the energy required by the UK, significant infrastructure will be required, including large-scale projects.

310 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.1.6 requires that the following matters relevant to fish and shellfish ecology are taken into account when considering any proposed development:

"The [Secretary of State] must have regard to the MPS and applicable marine plans in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area. In the event of a conflict between any of these marine planning documents and an NPS, the NPS prevails for purposes of [Secretary of State] decision making given the national significance of the infrastructure".

- 311 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts, at national, regional and local levels"*.
- 312 Paragraph 2.6.75 of NPS EN-3 sets out matters the Secretary of State should have regard to in reaching a decision. Where it is proposed that mitigation measures are applied to offshore export cables to reduce EMF (e.g. armoured cabling and cable burial at sufficient depths) the residual effects of EMF on sensitive species from cable infrastructure during operation are not likely to be significant. Once installed, operational EMF impacts are unlikely to be of sufficient range or strength to create a barrier to fish movement.
- 313 Table 46 of Volume 2, Chapter 6: Fish and Shellfish Ecology provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, O&M phase, and decommissioning phase.
- 314 The assessment of Fish and Shellfish has had regard to the relevant requirements for assessment set out in EN-1, EN-3, and the WNMP, and been carried out in accordance with those requirements.
- 315 The construction, operation and decommissioning of AyM will be in accordance with the relevant NPSs and other identified material planning policy matters. The environmental information and assessment carried out for AyM demonstrate that there is no conflict with any of the conditions set out by the NPSs which would lead to a refusal of development consent on fish and shellfish grounds.

316 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regards to the EIA Regulations and therefore the effects on fish and shellfish ecology should not weigh against the substantial benefits of AyM when considering the planning balance.

6.11 Marine Mammals

317 This topic is assessed in Volume 2, Chapter 7 (Marine Mammals) of the ES (application ref: 6.2.7).

6.11.1 National Policy Statements: NPS EN-1

318 No relevant policy requirements for marine mammals have been identified in EN-1.

6.11.2 National Policy Statements: NPS EN-3

EN-3 Policy: Paragraph 2.6.92

The assessment of the effects on marine mammals should include details of: likely feeding areas; known birthing areas/haul-out sites; nursery grounds; known migration or commuting routes; duration of disturbing activity including cumulative/ in-combination effects; baseline noise levels; predicted noise levels in relation to mortality, PTS and TTS; soft-start noise levels; and operational noise.

How has this been addressed?

319 All of the specified marine mammal ecology details are included in the Chapter. This assessment also considers the cumulative impacts of AyM and other relevant plans or projects (Section 7.13).

EN-3 Policy Paragraph 2.6.93

The Applicant should discuss any proposed piling activities with the relevant body. Where assessment shows that noise from offshore piling may reach noise levels likely to lead to an offence, the Applicant should look at possible alternatives or appropriate mitigation before applying for an EPS licence.

How has this been addressed?

- 320 In discussion with the Offshore Ecology Expert Technical Group, which formed a component of the Evidence Plan Process (see EIA Evidence Plan Report application ref: 8.2) the marine mammal assessment has considered the environmental impact of piling noise over a range of hammer energies and foundation types. The results of this assessment are detailed in paragraphs 7.10 *et seq.* Mitigation adopted as part of AyM is outlined in Section 7.10, with a draft Marine Mammal Mitigation Plan provided with the application (application ref: 6.4.7.2).

6.11.3 Other Policy Considerations

- 321 AyM is located within the WNMP Area. With regards marine mammals, the plan notes in particular that cumulative effects may prove significant if there is interaction between two or more pressures. Section 14 of the ES Chapter considers impacts to marine ecosystems, in the context of marine mammals, and cumulative effects, and notes that significant adverse effects have been avoided. This therefore accords with sub paragraph 1 of GOV_01: Cumulative effects, and ENV_01: Resilient Marine Ecosystems which state that proposals should demonstrate that they have assessed potential impacts on marine ecosystems and cumulative effects and should, in order of preference:

a. avoid adverse effects; and/or

b. minimise effects where they cannot be avoided; and/or

c. mitigate effects where they cannot be minimised.

If significant adverse effects cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

Further to this the WNMP notes with specific reference to underwater noise that:

ENV_05: Underwater noise Proposals should demonstrate that they have considered man-made noise impacts on the marine environment and, in order of preference:

a. avoid adverse impacts; and/or

b. minimise impacts where they cannot be avoided; and/or

c. mitigate impacts where they cannot be minimised.

If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

- 322 Through the iterative design process, the AyM assessment has optimised the design and reduced the number of turbines from an initially proposed 107 WTGs to a maximum design scenario of 50 WTGs. Furthermore, AyM has included an outline MMMP with the application which will mitigate potential underwater noise impacts on marine mammals.

Habitats Directive:

- 323 All cetaceans in Northern European waters are listed under Annex IV of the EU Directive 92/43/EEC on the Conservation of natural habitats and of wild fauna and flora (the Habitats Directive) as EPS of Community Interest and in need of strict protection. The harbour porpoise, bottlenose dolphin, harbour seal and grey seal have protection under Annex II as species of Community Interest whose conservation requires the designation of SACs.

How has this been addressed?

- 324 The potential impact to European Protected Species (risk of injury or disturbance) is assessed in Sections 7.10, 7.11, 7.12 and 7.13.

ASCOBANS:

- 325 ASCOBANS came into force in 1994. The aim of the Agreement is for member parties to cooperate to achieve and maintain Favourable Conservation Status for small cetaceans. ASCOBANS is applied in all UK waters in accordance with existing statutory protection for cetacean species.

How has this been addressed?

- 326 The effect of all potential impacts on the conservation status of small cetaceans is assessed in Sections 7.10, 7.11, 7.12 and 7.13 of the ES Chapter.

Marine Strategy Framework Directive (MSFD)

- 327 The overarching goal of the MSFD is to achieve 'Good Environmental Status' by 2020 across Europe's marine environment. To this end, Annex I of the Directive identifies 11 high level qualitative descriptors for determining GES. Those descriptors particularly relevant to the marine mammal assessment for AyM are Descriptors 4) Elements of marine food webs, 6) Sea floor integrity, 8) Contaminants, 11) Energy including underwater noise.

How has this been addressed?

- 328 The effects of the project on the abundance and distribution of marine mammals within the AyM site and wider regional area have been described and considered within the assessment for AyM alone and in the Cumulative Effects Assessment (CEA) (see sections 7.11 to 7.12 and 7.13, respectively).
- 329 The effect on marine mammal prey species as a result of impacts on the sea floor have been described and considered within the assessment for AyM alone and in the CEA. The effects of contaminants on marine mammal receptors were scoped out as agreed by Secretary of State in the scoping opinion (PINS, July 2020).
- 330 The effects of underwater noise from piling of WTGs and substation foundations, other construction activities (e.g. cable installation) and vessel noise have been considered within the assessment for AyM alone (Section 7.10.7) and in the CEA (see Section 7.13).

6.11.4 Considerations for the Secretary of State

- 331 Part 5.3 of EN-1 sets out the policy for the Secretary of State in relation to generic biodiversity impacts. Paragraphs 2.6.58 to 2.6.71 of NPS EN-3 sets out offshore wind-specific biodiversity policy. In addition, there are specific considerations from piling noise which apply to offshore wind energy infrastructure proposals with regard to marine mammals.
- 332 It is recognised in EN-1 that producing the energy required by the UK, significant infrastructure will be required, including large scale projects.

333 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.1.6 requires that the following matters relevant to marine mammals are taken into account when considering any proposed development:

"The [Secretary of State] must have regard to the MPS and applicable marine plans in taking any decision which relates to the exercise of any function capable of affecting the whole or any part of the UK marine area. In the event of a conflict between any of these marine planning documents and an NPS, the NPS prevails for purposes of [Secretary of State] decision making given the national significance of the infrastructure".

334 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to "environmental, social and economic benefits and adverse impacts, at national, regional and local levels".

335 Paragraph 2.6.94 to 2.6.96 of EN-3 relate to the Secretary of State's decision-making, and sets out that:

"the preferred methods of construction, in particular the construction method needed for the proposed foundations and the preferred foundation type, where known at the time of application, are designed so as to reasonably minimise significant disturbance effects on marine mammals. Unless suitable noise mitigation measures can be imposed by requirements to any development consent the [Secretary of State] may refuse the application.

The conservation status of marine European Protected Species and deals are of relevance to the [Secretary of State]. The [Secretary of State] should take into account the views of relevant statutory advisors.

Fixed submerged structures such as foundations are likely to pose little collision risk for marine mammals and the [Secretary of State] is not likely to have to refuse to grant consent for a development on the grounds that offshore wind farm foundations pose a collision risk to marine mammals".

336 Different foundation options and hammer energies have been considered for AyM. The maximum design scenario has been defined as those that represent the realistic maximum design scenario that have the potential to occur. These have been assessed and are presented in Table 18 of Volume 2, Chapter 7.

337 The conservation status of species has been factored into the assessment of significance in Table 17 of Volume 2, Chapter 7 of the ES.

- 338 Table 60 of Volume 2, Chapter 7 of the ES provides a summary of the potential environmental effects and identifies approaches to mitigation and proposed monitoring during the construction phase, O&M phase, and decommissioning phase.
- 339 The assessment of marine mammals has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.
- 340 The construction, operation and decommissioning of AyM will be in accordance with the relevant NPSs and other identified material planning policy matters. The environmental information and assessment carried out for AyM demonstrates that there is no conflict with any of the conditions set out by the NPSs which would lead to a refusal of development consent on marine mammal grounds.
- 341 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regards to the EIA Regulations.
- 342 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regards to the EIA Regulations and therefore the effects on marine mammals should not weigh against the substantial benefits of AyM when considering the planning balance.

343

6.12 Commercial Fisheries

- 344 This topic is assessed in Volume 2, Chapter 9 (Commercial Fisheries) of the ES (application ref: 6.2.8).

6.12.1 National Policy Statements: NPS EN-1

- 345 No relevant policy requirements for commercial fisheries have been identified in EN-1.

6.12.2 National Policy Statements: NPS EN-3

EN-3 Policy: Section 2.6.121-123

Whilst the footprint of the OWF and any associated infrastructure may be a hindrance to certain types of commercial fishing activity such as trawling and longlining, other fishing activities may be able to take place within operational wind farms without unduly disrupting or compromising navigational safety. Consequently, the establishment of a wind farm can increase the potential for some fishing activities, such as potting, where this would not compromise any advisory safety area in place. The [Secretary of State] should consider adverse or beneficial impacts on different types of commercial fishing activity.

How has this been addressed?

- 346 This is addressed at Section 8.9 and 8.10 of the Chapter with regards impacts during the construction and operational phases of the project.

EN-3 Policy Section 2.6.124

In some circumstances, transboundary issues may be a consideration as fishermen for other countries may fish in waters within which OWFs are sited.

How has this been addressed?

- 347 This is addressed at Section 8.14 of the Chapter.

EN-3 Policy: Section 2.6.127

Early consultation should be undertaken with statutory advisors and with representatives of the fishing industry which could include discussion of impact assessment methodologies. Where any part of the proposal involves a grid connection to shore, appropriate inshore fisheries groups should also be consulted.

How has this been addressed?

- 348 Consultation is presented in Section 8.3 of the ES Chapter, and the associated consultation annex (application ref 6.2.8.3).

EN-3 Policy: Section 2.6.129

The assessment by the applicant should include detailed surveys of the effects on fish stocks of commercial interest and any potential reduction in such stocks, as well as likely constraints on fishing activity within the project's

boundaries. Robust baseline data should have been collected and studies conducted as part of the assessment.

How has this been addressed?

- 349 This is addressed in Fish and Shellfish Ecology (application ref: 6.2.6) and Section 8.9 of the Chapter.

EN-3 Policy: Section 2.6.130

- 350 Where there is a possibility that advisory safety areas will be sought around offshore infrastructure, potential effects should be included in the assessment on commercial fishing.

How has this been addressed?

- 351 This is addressed at Section 8.9 of the Chapter.

EN-3 Policy: Section 2.6.131

Where the precise extent of potential advisory safety areas are unknown, a realistic worst-case scenario should be assessed. Applicants should consult the Maritime and Coastguard Agency (MCA). Exclusion of certain types of fishing. The assessment by the applicant should include detailed surveys of the effects on fish stocks of commercial interest and the potential reduction or increase in such stocks that will result from the presence of the wind farm development and the implementation of any advisory safety areas.

How has this been addressed?

- 352 This is addressed at Section 8.9 *et seq* of the Chapter.

6.12.3 Other Policy Considerations

Marine Policy Statement

- 353 The UK Marine Policy Statement explicitly expresses support for the fishing sector, and with regard to displacement, advocates 'seeking solutions such as co-location of activity wherever possible'. Paragraphs 3.8.1, 3.8.2 and 2.3.1.5 stipulate that the process of marine planning should 'enable the co-existence of compatible activities wherever possible' and supports the reduction of real and potential conflict as well as maximising compatibility and encouraging co-existence of activities.

How has this been addressed?

- 354 A Fisheries Liaison and Coexistence Plan (application ref: 8.5) has been produced and consulted upon which sets out the measures for communication and coexistence during construction and operation phases of AyM.

Welsh National Marine Plan

- 355 AyM is located within the WNMP Area. With regards commercial fisheries, the plan notes in particular that cumulative effects may prove significant if there is interaction between two or more pressures. Section 14 of the ES Chapter considers cumulative effects, and notes that significant adverse effects have been avoided. This therefore accords with sub paragraph 1 of GOV_01: Cumulative effects, which states that proposals should demonstrate that they have assessed potential impacts on marine ecosystems and cumulative effects and should, in order of preference:

a. avoid adverse effects; and/or

b. minimise effects where they cannot be avoided; and/or

c. mitigate effects where they cannot be minimised.

If significant adverse effects cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

- 356 Further to this the WNMP notes with specific reference to commercial fisheries that:

FIS_01: Fisheries (supporting)

FIS_01 a: Proposals that support and enhance sustainable fishing activities 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.

- 357 Through the iterative design process, the AyM assessment has optimised the design and reduced the number of turbines from an initially proposed 107 WTGs to a maximum design scenario of 50 WTGs. This has minimised potential impacts on commercial fisheries as far as practicable by reducing the spatial maximum design scenario and loss of fishing area (see section 6.10 et seq).

358 Further to this, AF-01b seeks to *enable established activities to continue and thrive wherever possible*" (paragraph 404).

How has this been addressed?

359 This has been considered within the ES Chapter at sections 8.9 *et seq*, and through the provision of the fisheries coexistence and liaison plan (application ref: 8.5).

6.12.4 Considerations for the Secretary of State

360 Paragraphs 2.6.132 and 2.6.133 of NPS EN-3 sets out the policy for the Secretary of State's decision making in relation to Commercial Fisheries.

361 It is recognised in EN-1 that producing the Energy required by the UK, significant infrastructure will be required, including large scale projects.

362 Part 4 of EN-1 sets out a series of general principles that will be taken in account when reaching a decision. Paragraph 4.1.2 requires that:

"The [Secretary of State] should start with a presumption in favour of granting consent to applications for energy NSIPs".

363 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts, at national, regional and local levels"*.

364 Paragraph 2.6.132 relates to the Secretary of State's decision making, and sets out that:

"The [Secretary of State] should be satisfied that the site selection process has been undertaken in a way that reasonably minimises adverse impacts on fish stocks, including during peak spawning periods and the activity of fishing itself. The [Secretary of State] should consider the extent to which the proposed development occupies any recognised important fishing grounds and whether the project would prevent or significantly impede protection of sustainable Commercial Fisheries or fishing activities".

365 Paragraph 2.6.33 states that:

"The [Secretary of State] should be satisfied that the applicant has sought to design the proposal having consulted representatives of the fishing industry

with the intention of minimising the loss of fishing opportunity taking into account effects on other marine interests".

- 366 The effects arising from the proposed development have been and will be discussed with statutory bodies during pre- and post-application consultation. AyM is taking, and will continue to take, steps to minimise the effects upon the fishing industry in the area through appropriate mitigation where required. Designed-in measures related to commercial fisheries and adopted as part of AyM are provided in section 8.8 of the Commercial Fisheries ES Chapter.
- 367 Table 15 of Volume 2, Chapter 9: Commercial Fisheries of the Environmental Statement provides a summary of the potential environmental effects during the construction phase, O&M phase, and decommissioning phase.
- 368 The assessment of Commercial Fisheries has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.
- 369 The construction, operation and decommissioning of AyM will be in accordance with the relevant NPSs and other identified material planning policy matters. The environmental information and assessment carried out for AyM demonstrate that there is no conflict with any of the conditions set out by the NPSs which would lead to a refusal of development consent on commercial fisheries grounds.
- 370 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regards to the EIA Regulations.
- 371 Whilst isolated moderate magnitude impacts on the potting fleet have been identified, this effect is mitigated through the agreed fisheries coexistence and liaison plan (application ref: 8.5), which reduces the impact to minor and not significant with regards the EIA Regulations. When considering that otherwise no significant effects are predicted this should only carry very limited weight against the substantial benefits of AyM, particularly when considering the local economic benefits predicted.

6.13 Shipping and Navigation

372 This topic is assessed in Volume 2, Chapter 10 (Shipping and Navigation) of the ES (application ref: 6.2.9).

6.13.1 National Policy Statements: NPS EN-1

373 No relevant policy requirements for shipping and navigation have been identified in EN-1.

6.13.2 National Policy Statements: NPS EN-3

EN-3 Policy: Paragraph 2.6.153

Stakeholders in the navigation sector should be engaged in the early stages of the development phase and this should continue throughout construction, operation and decommissioning.

How has this been addressed?

374 Section 9.3 of the ES Chapter summarises key issues raised during consultation specific to shipping and navigation.

EN-3 Policy: Paragraph 2.6.154

Consultation should be undertaken with the Marine Management Organisation (MMO), MCA, relevant General Lighthouse Authority (GLA), relevant industry bodies and representatives of recreational users.

How has this been addressed?

375 The consultation summarised in section 9.3 includes issues raised by the organisations stated. As the relevant regulatory authority for Marine Licencing in Wales, Natural Resources Wales did not respond directly on shipping and navigation impacts within the Scoping Opinion or s42 consultation.

EN-3 Policy: Paragraph 2.6.155

376 Paragraph 2.6.155 states that information on internationally recognised sea lanes should be considered prior to undertaking assessments.

How has this been addressed?

Section 9.7, 9.10 and 9.11 provide information on International Maritime Organisation Routing measures within the vicinity of AyM, and conclude there to be no significant effect.

EN-3 Policy: Paragraph 2.6.158

Where there is a possibility that safety zones will be sought around offshore infrastructure, potential effects should be included in the assessment on navigation and shipping.

How has this been addressed?

377 The effectiveness of safety zones is discussed within sections 9.10 to 9.14 of the ES Chapter, and the Safety Zone Statement (application ref: 7.2).

EN-3 Policy: Paragraph 2.6.160

The potential effect on recreational craft, such as yachts, should be considered in any assessment.

How has this been addressed?

378 The effect of AyM on recreational vessels has been analysed in Figure 10.9 and discussed within sections 10.7 to 10.15.

6.13.3 Other Policy Considerations

Ports NPS Paragraph 5.14.2

Where the project is likely to have socio-economic impacts at local or regional levels, the applicant should undertake and include in their application an assessment of these impacts as part of the ES.

How has this been addressed?

379 Impacts on port access and vessel routing have been assessed from a navigational safety perspective in the construction phase (Section 9.10 of the ES Chapter), the operational phase (Section 9.11) and the decommissioning phase (Section 9.12).

Ports NPS Paragraph 5.14.4

Applicants should describe the existing socio-economic conditions in the areas surrounding the proposed development and should also refer to how the development's socio-economic impacts correlate with local planning policies.

How has this been addressed?

- 380 Impacts on port access and vessel routeing have been assessed from a navigational safety perspective in the construction phase (Section 9.10), the operational phase (Section 9.11) and the decommissioning phase (Section 9.12).
- 381 Socioeconomic impacts are assessed separately in Volume 3, Chapter 3.3 (application ref: 6.3.3). The conclusions drawn are that there is no significant adverse effect associated with the proposed project on vessel routing, either in the context of routes to ports or the wider regional economy.

Welsh National Marine Plan – SOC-01: Access to the marine environment

Proposals that maintain or enhance access to the marine environment are encouraged.

How has this been addressed?

- 382 Impacts on displacement / deviation are assessed within Sections 9.10.1, 9.11.1, and 9.12.1 of the ES Chapter.
- 383 Whilst not specifically items of policy, the following guidance may be of relevance to the Secretary of State's decision making and so has been included for completeness.

MGN 654 Guidance on UK Navigational Practice, Safety and Emergency Response Issues

- 384 This MGN highlights issues to be considered when assessing the impact on navigational safety and emergency response, caused by OREI developments, including traffic surveys, consultation, structure layout, collision avoidance, impacts on communications/ radar/ positioning systems and hydrography.

How has this been addressed?

- 385 Section 9.3 provides an overview of consultation undertaken. Section 9.7 provides an overview of traffic surveys and analysis. Section 9.10 *et seq* discusses impacts on shipping and navigation.

Department of Energy and Climate Change (DECC) Methodology for Assessing Marine Navigational Safety Risks of Offshore Wind Farms

- 386 The DECC document provides a template for preparing NRA's for offshore wind farms.

How has this been addressed?

- 387 This guidance document has been used for drafting the full NRA, which is provided as an appendix to the ES (application ref: 6.4.10.1).

MGN 372 Guidance to Mariners Operating in the Vicinity of UK OREIs

- 388 Issues to be taken into account when planning and undertaking voyages near OREI off the UK coast.

How has this been addressed?

- 389 Section 9.10 *et seq* of the ES chapter is informed by the impacts discussed and issues raised in MGN 372.

International Association of Marine Aids to Navigation and Lighthouse Authorities (IALA AISM) 0-139 the Marking of Man-Made Offshore Structures:

- 390 Guidance to national authorities on the marking of offshore structures including wind farms.

How has this been addressed?

- 391 This is considered as part of section 9.9 of the ES Chapter, with mitigation options identified including a lighting and marking plan to be agreed with the relevant authorities in advance of construction; see also application ref: 5.4.1 Outline approach to Marine Licensing.

International Maritime Organisation (IMO) Formal Safety Assessment

- 392 Process for undertaking marine navigation risk assessments.

How has this been addressed?

- 393 This guidance document has been used for drafting the full NRA, which is provided as an appendix to the ES (application ref: 6.4.9.1).

Royal Yachting Association (RYA) Position on Offshore Energy Developments:

- 394 Outlines recreational boating concerns for offshore renewable energy developments.

How has this been addressed?

- 395 Section 9.10 and 9.11 of the ES Chapter discuss impacts on shipping and navigation and are informed by this guidance.

6.13.4 Considerations for the Secretary of State

- 396 Part 5.8 of EN-1 sets out matters relevant to shipping and navigation at a national level. It is recognised in EN-1 that producing the energy required by the UK, significant infrastructure will be required, including large-scale projects.

- 397 EN-3 contains more specific guidance, relevant to the Secretary of State's decision-making process with regard to shipping and navigation.
- 398 Table 12 of the Shipping and Navigation Chapter of the ES provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, O&M phase, and decommissioning phase.
- 399 The assessment of Shipping and Navigation has had regard to the relevant requirements for assessment set out in EN-1 and EN-3, and been carried out in accordance with those requirements.
- 400 The construction, operation and decommissioning of AyM will be in accordance with the relevant NPSs and other identified material planning policy matters.
- 401 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regards to the EIA Regulations, therefore effects on shipping and navigation should not weigh against the substantial benefits of AyM when considering the planning balance.

6.14 Seascape, Landscape and Visual Impact Assessment

- 402 This topic is assessed in Volume 2, Chapter 10 (Seascape, Landscape and Visual Impact Assessment) of the ES (application ref: 6.2.10).

6.14.1 National Policy Statements: NPS EN-1

EN-1 Policy: Paragraph 5.9.5

- 403 The applicant should carry out a landscape and visual assessment. This policy makes reference to the following documents:
- Landscape Institute and Institute of Environmental Management and Assessment (2002, 2nd edition): Guidelines for Landscape and Visual Impact Assessment; and
 - Land Use Consultants (2002): Landscape Character Assessment – Guidance for England and Scotland.

How has this been addressed?

- 404 The Guidelines for Landscape and Visual Impact Assessment (GLVIA) (2002, 2nd edition) have been superseded by GLVIA Version 3 (GLVIA3). The SLVIA has been prepared following the more recent GLVIA3 as described in section 10.5: Scope and Methodology and associated annex (application ref: 6.4.10.1). Landscape Character Assessment guidance (2002) has also been superseded by Natural England (2014) guidance 'An Approach to Landscape Character Assessment'.

EN-1 Policy: Paragraph 5.9.5

The landscape and visual assessment should include reference to any landscape character assessment and associated studies as a means of assessing landscape impacts relevant to the proposed project. The applicant's assessment should also take account of any relevant policies based on these assessments in local development documents in England [or Wales].

How has this been addressed?

- 405 The SLVIA has been carried out with reference to published Landscape Character Assessments (LCAs). LCAs for the study area and policies are referred to in section 10.10 of the SLVIA.

EN-1 Policy: Paragraph 5.9.6

The applicant's assessment should include the effects during construction of the project and the effects of the completed development and its operation on landscape components and landscape character.

How has this been addressed?

- 406 The effect on landscape components and landscape character during construction and operations and maintenance (O&M) are assessed in section 10.11 of the SLVIA.

EN-1 Policy: Paragraph 5.9.7

The assessment should include the visibility and conspicuousness of the project during construction and of the presence and operation of the project

and potential impacts on views and visual amenity. This should include light pollution effects, including on local amenity, and nature conservation.

How has this been addressed?

- 407 The visual effect during the day and night time of the project during construction and O&M is assessed in section 10.11 and 10.12 respectively of the SLVIA.

EN-1 Policy: 5.9.8

Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate.

How has this been addressed?

- 408 The quality, value and capacity of the landscape to accommodate change is a consideration of the landscape assessment in section 10.10 et seq of the SLVIA. The offshore array has been sequentially reduced, following an iterative design approach including workshops held with stakeholders through the EIA Evidence Plan process in which stakeholders were encouraged to identify preferred alternatives from a suite of options put forward by the Applicant.
- 409 The iterative design process has sequentially reduced the proposed project footprint from 107 km² to 78 km², which in turn has led to a reduction in the number of WTGs from a maximum of 107 WTGs to a maximum of 50 WTGs and a reduction in the horizontal east-west spread of 5 km. During the consultation-led iterative design process, a number of design commitments have also been made, including the introduction of adaptive management measures for lighting, which will reduce the visible light from a maximum of 2000cd to a maximum of 200cd only during periods of clear weather.

- 410 As such, the design of the array has taken into account the potential impact on the landscape in order to minimise harm by mitigation of landscape effects as shown in section 10.9 of the SLVIA, and as summarised in the Site Selection and Alternatives Chapter (application ref: 6.1.4).

EN-1 Policy Paragraph 5.9.12

- 411 The duty to have regard to the purposes of nationally designated areas also applies when considering applications for projects outside the boundaries of these areas which may have impacts within them. The aim should be to avoid compromising the purposes of designation and such projects should be designed sensitively given the various siting, operational, and other relevant constraints. Paragraph 5.9.13 advises *"The fact that a proposed project will be visible from within a designated area should not in itself be a reason for refusing consent"*.

How has this been addressed?

- 412 The effect of the offshore array on nationally-designated areas is assessed in section 10.11 of the SLVIA. As concluded in the SLVIA Chapter, although the WTGs are visible from the Isle of Anglesey AONB and SNP the purposes of the designation are not compromised such that the designation is substantially harmed.
- 413 Whilst it is recognised that there are significant effects, and some harm, it is considered that the ability to avoid impacts is constrained by the requirements placed on the site selection process, namely that AyM must share at least one boundary with its sister project GyM. The effect and associated harm have therefore been minimised as far as is practicable.

- 414 As noted previously, it is also relevant to note that the primary purpose of AONBs and National Parks is to provide recreational opportunities to the public. Following extensive consultation, it is evident that there is limited if any public opposition to the proposed project in the context of the AONB or National Park; the responses received (which were provided in the context of the project before it was markedly reduced) and presented in the Consultation Report generally strike a note of welcome in the context of renewable energy and the target to reach net zero. As such, it is considered that whilst WTGs will be visible, and there is some significant change from the baseline which results in a significant effect with regards the EIA Regulations, and some harm, it is not so substantial as to detract from the overarching purpose of National Parks and AONBs.

EN-1 Policy Paragraph 5.9.14

Outside nationally designated areas, there are local landscapes that may be highly valued locally and protected by local designation. Where a local development document has policies based on landscape character assessment, these should be paid particular attention. However, local landscape designations should not be used in themselves to refuse consent, as this may unduly restrict acceptable development.

How has this been addressed?

- 415 The value of the local landscape is a consideration within the SLVIA, which is assessed as part of the landscape assessment in section 10.10 et seq of the SLVIA.

EN-1 Policy: Paragraphs 5.9.15 & 5.9.16

- 416 *The scale of such projects means that they will often be visible within many miles of the site of the proposed infrastructure. The [Secretary of State] should judge whether any adverse impact on the landscape would be so damaging that it is not offset by the benefits (including need) of the project. The [Secretary of State] should consider whether the project has been designed carefully, taking account of environmental effects on the landscape and siting, operational and other relevant constraints, to minimise harm to the landscape, including by reasonable mitigation.*

How has this been addressed?

- 417 Volume 1 Chapter 4 'Site Selection and Alternatives' (application ref: 6.1.4) of the ES sets out the iterative process that has influenced the design of AyM. The mitigation of landscape and visual effects has been carefully considered in the SLVIA, to minimise 'harm to the landscape' or seascape where possible. It is of note however that the extent to which it is possible to avoid harm is, in the case of extensions to existing windfarms, hindered by the requirement to follow The Crown Estate 2017 Extension Round criteria. This is recognised in both the extant and the more recent draft NPS. As noted previously however, the project has been revised and refined significantly during a stakeholder consultation-led process which has resulted in a significant reduction in the proposed project. Whilst it is not possible to reduce individual WTG parameters, or to entirely avoid landscape impacts, the impacts have been minimised as far as practicable whilst maintaining an economically viable project, and providing meaningful contribution to the UK climate targets and the associated benefits which are imperative.

EN-1 Policy: Paragraph 5.9.19 of EN-1

- 418 In relation to visual impact, this paragraph advises that "*It may be helpful for applicants to draw attention, in the supporting evidence to their applications, to any examples of existing permitted infrastructure they are aware of with a similar magnitude of impact on sensitive receptors. This may assist the [Secretary of State] in judging the weight it should give to the assessed visual impacts of the Offshore WTG Array*".

How has this been addressed?

- 419 The GyM WTGs can be used as a scale comparison to assist with the magnitude assessment of the proposed AyM array. Whilst the proposed WTGs are larger than those already constructed (and it is not possible to procure offshore WTGs that are the same size as those of GyM), it is evident that the magnitude of change at certain sensitive receptors will be comparable to the magnitude of change experienced by viewpoints following the construction of GyM. Further it is evident that the additional turbines are not incongruous in a seascape also partly characterised by renewable energy.

EN-1 Policy: Paragraph 5.9.21

- 420 *Reducing the scale of a project can help to mitigate the visual and landscape effects of a proposed project. However, reducing the scale or otherwise amending the design of a proposed energy infrastructure project may result in a significant operational constraint and reduction in function – for example, the electricity generation output. There may, however, be exceptional circumstances, where mitigation could have a very significant benefit and warrant a small reduction in function. In these circumstances, the [Secretary of State] may decide that the benefits of the mitigation to reduce the landscape and/or visual effects outweigh the marginal loss of function. Similarly, paragraph 2.6.210 of EN-3 advises – "Neither the design nor scale of individual WTGs can be changed without significantly affecting the electricity generating output of the WTGs. Therefore, the [Secretary of State] should expect it to be unlikely that mitigation in the form of reduction in scale will be feasible. However, the layout of the WTGs should be designed appropriately to minimise harm, taking into account other constraints such as ecological effects, safety reasons or engineering and design parameters".*

How has this been addressed?

- 421 The siting and design of the offshore array has incorporated embedded mitigation to reduce the scale of the project and the resulting landscape and visual effects. This is described in section 10.9 of the SLVIA. Following section 42 consultation comments from stakeholders on the PEIR, the OWF area has been reduced at its north-western corner. This change to the OWF area has resulted in a new Rochdale Envelope WTG layout for the SLVIA, with the WTGs in the north-western part of the PEIR OWF area being removed, and a net reduction in the overall number of WTGs and capacity of the proposed project. This change in the Rochdale Envelope WTG layout assessed in the Environmental Statement, provides further and partial mitigation of some seascape, landscape and visual effects assessed in the PEIR.

6.14.2 National Policy Statements: NPS EN-3

EN-3 Policy: Paragraph 2.6.199

Seascape is a discrete area within which there is shared inter-visibility between land and sea. (Definition taken from Appendix 3 of DTI (2005) Guidance on the Assessment of the Impact of Offshore Wind Farms: Seascape and Visual Impact Report). In some circumstances it may be necessary to carry out a seascape and visual impact assessment (SVIA) in accordance with the relevant offshore wind farm EIA policy.

How has this been addressed?

- 422 The effect of AyM on seascape character is assessed in section 10.10 of the SLVIA. The definitions of seascape have been more recently defined in Seascape Character Assessment guidance published by Natural England (NE) (NE, 2012), and informed through reference to research papers published by Natural Resources Wales following the Crown Estate 2017 Extension Round (White Consultants, 2019a, b, c). As highlighted in paragraph 186 it is also relevant to note that the research papers produced by White Consultants effectively preclude offshore windfarm development in much of Welsh waters.

EN-3 Policy: Paragraph 2.6.200

The seascape is an important resource and an economic asset. Coastal landscapes are often recognised through statutory landscape designations.

How has this been addressed?

- 423 The effect of AyM on statutory landscape designations such as AONBs, SNP, and conservation areas more broadly is assessed in section 10.11 of the SLVIA.

EN-3 Policy: Paragraph 2.6.202

Where a proposed offshore wind farm will be visible from the shore, an SVIA should be undertaken which is proportionate to the scale of the potential impacts. Impact on seascape should be addressed in addition to the landscape and visual effects discussed in EN-1.

How has this been addressed?

- 424 An SLVIA has been undertaken as presented in Chapter 10 of the ES. The scope of assessment, maximum design scenarios, and preferred boundary for assessment was determined in consultation with the SLVIA technical group as part of the Evidence Plan process.

EN-3 Policy: Paragraph 2.6.203

Where necessary, assessment of the seascape should include an assessment of three principal considerations on the likely effect of Offshore Wind Farms (OWFs) on the coast:

- limit of visual perception from the coast;
- individual characteristics of the coast which affect its capacity to absorb a development; and
- how people perceive and interact with the seascape.

How has this been addressed?

- 425 The effect of AyM on seascape character, including the three principal considerations outlined above, is assessed in section 10.10 of the SLVIA.

EN-3 Policy: Paragraph 2.6.204

As part of the SVIA, photomontages are likely to be required. Viewpoints to be used for the SVIA should be selected in consultation with the statutory consultees at the EIA Scoping stage.

How has this been addressed?

- 426 Viewpoints have been selected and agreed following scoping responses and in consultation with the SLVIA technical group as part of the Evidence Plan process. An unprecedented number of viewpoints have been included within the assessment, with a strategic focus agreed as to which viewpoints will be subject to detailed assessment and which are provided for context and reduced assessment.
- 427 Photomontages of AyM are provided in ES Volume 6, Figures 10.28 – 10.90.

EN-3 Policy: Paragraph 2.6.205

Magnitude of change to both the identified seascape receptors (such as seascape units and designated landscapes) and visual receptors (such as viewpoints) should be assessed in accordance with the standard methodology for SVIA.

How this been addressed?

- 428 The magnitude of change to seascape receptors has been assessed in accordance with best practice (see application ref: 6.4.10.3 for the detailed methodology employed in accordance with guidance and best practice) section 10.10 and on visual receptors in section 10.11 and 10.12 of the SLVIA.

6.14.3 Other Policy Considerations

UK Marine Planning Policy Statement

- 429 Provides the UK's framework for preparing marine plans including the WNMP.

UK MPS paragraph 2.6.5.3

In considering the impact of an activity or development on seascape, the marine plan authority should take into account existing character and quality, how highly it is valued and its capacity to accommodate change specific to any development. Landscape Character assessment methodology may be an aid to this process."

How has this been addressed?

- 430 These aspects of the seascape, landscape and visual resource are considered in the assessment of the impacts in Sections 10.10 and 10.11.

UK MPS paragraph 2.6.5.4

For any development proposed within or relatively close to nationally designated areas the marine plan authority should have regard to the specific statutory purposes of the designated areas. The design of a development should be taken into account as an aid to mitigation.

How has this been addressed?

- 431 The effect on the Isle of Anglesey AONB is assessed in Section 10.11.3. The effect on the SNP is assessed in Section 10.11.5. The effect on the Clwydian Range and Dee Valley AONB is assessed in Section 10.11.7.

Welsh National Marine Plan; SOC_06: Designated landscapes

Proposals should demonstrate how potential impacts on the purposes and special qualities for which National Parks or Areas of Outstanding Natural Beauty have been designated have been taken into consideration and should, in order of preference:

- a. avoid adverse impacts on designated landscapes; and/ or*
- b. minimise impacts where they cannot be avoided; and/ or*
- c. mitigate impacts where they cannot be minimised.*

If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

Opportunities to enhance designated landscapes are encouraged.

432

How has this been addressed?

- 433 The effects on the IoA AONB, SNP and the Clwydian Hills and Dee Valley AONB, as a result of the AyM being located within part of their settings, is assessed in Sections 10.11.3, 10.11.5 and 10.11.7 respectively of the ES Chapter and takes into account the identified special qualities.
- 434 As has been described previously, the AyM project has undergone significant revision during consultation. That revision process has resulted in a marked reduction of the project design in order to minimise impacts. Whilst it is not possible to avoid impacts, for the reasons already set out in this document and in Volume 1, Chapter 4, Site Selection and Alternatives, the project design process has sought to minimise impacts as far as possible whilst maintaining a project that will provide significant benefit and meaningfully contribute to UK and Welsh Government targets for renewable energy.

Welsh National Marine Plan: paragraph 128

There are also a number of non-statutory designations including Heritage Coasts and Registered Historic Landscapes. Some 42% of Wales' coastline is defined as Heritage Coast; often this is contiguous with other designations such as National Parks or AONBs. These non-statutory designations were defined to protect stretches of scenic and undeveloped coastline from unsuitable development.

How has this been addressed?

- 435 Volume 2, Chapter 12 considers the effects on Registered Historic Landscapes.
- 436 The recognized value and qualities associated with Registered Historic Landscapes and Heritage Coasts is considered in Section 10.11.

Welsh National Marine Plan: paragraph 129 and 130

Policy SOC_06 recognises that resilient, diverse, multifunctional landscapes supported by sustainable management practices can provide a range of services and opportunities with the potential to contribute to the achievement of social objectives and improve health and well-being as well as delivering economic benefit.

Under this policy, proposals should demonstrate appropriate consideration of the potential impacts of developments and activities on designated landscapes. This policy also encourages opportunities to contribute positively to the protection or enhancement of these areas. National Parks and AONBs are of equal status in terms of landscape and scenic beauty and both should be afforded protection from inappropriate developments.

How has this been addressed?

- 437 The effects on the IoA AONB, SNP and the Clwydian Hills and Dee Valley AONB, as a result of AyM being located within part of their settings, is assessed in Sections 10.11.3, 10.11.5 and 10.11.7 respectively and takes into account the landscape and scenic beauty identified by certain special qualities.

Welsh National Marine Plan: SOC_07: Seascapes

Proposals should demonstrate how potential impacts on seascapes have been taken into consideration and should, in order of preference:

- a. avoid adverse impacts on seascapes; and/ or*
- b. minimise impacts where they cannot be avoided; and/ or*
- c. mitigate impacts where they cannot be minimised.*

If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

Opportunities to enhance seascapes are encouraged.

438 And

Where there is the potential to significantly change the seascape of an area through proposed developments or plan-making, under Policy SOC_07 the impacts and relative value of the altered seascape should be considered as part of decision making. Seascape concerns in themselves need not be a barrier to sensitively sited and designed development and considering seascapes at an early stage should be seen as an approach that can be helpful to identify more widely acceptable solutions and to help steer the right development to the right place.

How has this been addressed?

439 The effects on seascapes as a result of the AyM is assessed in Sections 10.10 and 10.11.

440 A description of how the effects have been avoided, minimised and mitigated is included in Volume 1, Chapter 4 and Section 10.9 of the SLVIA Chapter.

Denbighshire LDP Policy VOE 09 Onshore wind energy

On shore wind turbine developments will be supported subject to an assessment of their environmental and sustainability impacts.

441 The policy then goes on to note projects will be supported within the Clocaenog Strategic Search Area, and where they do not adversely affect the setting of AONBs, Conservation Areas, World Heritage Sites, and other sites

How has this been addressed?

- 442 Although noted as relating onshore wind, the effects associated with the AyM project have been assessed in Sections 10.10 and 10.11 of the ES Chapter. A description of how the effects have been considered in the context of the *AONBs, Conservation Areas, World Heritage Site and other sites designated for ecological historic, landscape or other value* is also included in Volume 4, Chapter 4 and Section 10.9 of the SLVIA Chapter.

Anglesey and Conwy joint LDP (adopted 2017) Strategic policy PS 7: Renewable Energy Technology

- 443 Notes that there are no strategic search areas for onshore wind within the plan area, and that the Councils will seek to ensure that the Plan area wherever feasible and viable realises its potential as a leading area for initiatives based on renewable or low carbon energy technologies. This is caveated by noting (in POLICY ADN1) that no large scale or very large-scale wind farms will be permitted in the Plan area, and that smaller scale turbines will only be permitted subject to an assessment of their environmental and sustainability impacts and *inter alia*:
- i. *all impacts on landscape character, heritage assets and natural resources have been adequately mitigated, ensuring that the special qualities of all locally, nationally and internationally important landscape, biodiversity and heritage designations, including, where appropriate, their settings are conserved or enhanced;*
 - ii. *the proposal will not result in significant harm to the safety or amenity of sensitive receptors including effect from noise, shadow flicker and impact on public health, and will not have an unacceptable impact on roads, rail or aviation safety;*
 - iii. *the proposal will not result in significant harm to the residential visual amenities of nearby residents*

How has this been addressed?

- 444 Although noted as relating onshore wind, the effects associated with the AyM project have been assessed in Sections 10.10 and 10.11 of the ES Chapter. A description of how the effects have been considered in the context of the AONBs, Conservation Areas, World Heritage Site and other sites designated for ecological historic, landscape or other value is also included in Volume 4, Chapter 4 and Section 10.9 of the SLVIA Chapter.

6.14.4 Considerations for the Secretary of State

- 445 Paragraphs 5.9.8 to 5.9.20 of EN-1 sets out a series of principles that will be taken into account when reaching a decision. Paragraph 5.9.8 of EN-1 advises "*Landscape effects depend on the existing character of the local landscape, its current quality, how highly it is valued and its capacity to accommodate change. All of these factors need to be considered in judging the impact of a project on landscape. Virtually all nationally significant energy infrastructure projects will have effects on the landscape. Projects need to be designed carefully, taking account of the potential impact on the landscape. Having regard to siting, operational and other relevant constraints the aim should be to minimise harm to the landscape, providing reasonable mitigation where possible and appropriate*".
- 446 Sections 10.10 et seq, of Volume 2, Chapter 10: Seascape Landscape and Visual Impact Assessment (application ref: 6.2.10) provides a summary of the potential effects during the construction, O&M and decommissioning phases of AyM, with embedded mitigation summarised in Section 10.9. The cumulative effects assessment is presented in Section 10.13.

- 447 The design of the Offshore WTG array has taken into account the potential impact on the landscape in order to minimise harm by mitigation of landscape effects. During development, AyM has sought to refine the array area to reduce the westerly spread of the project in views from the north Wales/Anglesey coastline. The western section of the array has been reduced, initially during consultation as part of the Evidence Plan process and further following s42 consultation, which provides partial mitigation by providing a reduced spread and therefore visibility from sections of the northwest Wales/ Anglesey coast, increasing the perception of the sea beyond and the impression that the array is clearly offshore. The reduction has also reduced the number of turbines from an initially proposed 107 during scoping to 50 following s42 consultation; the reduction has maintained economic viability, whilst reducing the impact as far as practicable.
- 448 The SLVIA has found that the introduction of the array to the seascape/ landscape would not result in the key characteristics of the surrounding area being affected to such a degree that it would become a 'wind farm seascape' (in addition to or in combination with other operational or consented wind farms). In addition it would not be an incongruous addition to the existing seascape which is characterised in Welsh policy documents as partially industrialised where wind turbines dominate the character, but would remain characterised locally as a 'seascape with wind farms'. This is an important distinction as it implies that the carrying capacity – as defined by its inherent landscape character – would not be exceeded by the array (in combination with other operational or consented OWFs).
- 449 EN-1 (Paragraph 5.9.9) considers the potential effects of development on nationally designated landscapes, such as AONBs, National Parks and the Broads.

- 450 EN-1 recognises that each of these designated landscape types have a specific statutory purpose, and that the Secretary of State should have regard to that in decision making. In such areas, EN-1 requires that the conservation of the natural beauty of the landscape and countryside should be given substantial weight by the Secretary of State in deciding on applications for development consent. Whilst AyM has been assessed as having significant effects on some designated landscapes, the ability to understand the designated landscape is not reduced so greatly that it compromises the designations.
- 451 EN-1 notes that *Projects should be designed carefully, taking account of environmental effects on the landscape and siting, operation and maintenance and other relevant constraints, to minimise the harm to the landscape by reasonable mitigation* (5.9.17). Table 3 of Volume 2, Chapter 10: Seascape Landscape Visual Impact Assessment of the Environmental Statement (application ref: 6.2.10) outlines how AyM complies with this requirement. As stated above, design changes have been undertaken to minimise the effects of the proposed development.
- 452 EN-1 (5.9.18) states that *all proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. The [Secretary of State] will have to judge whether the visual effects on sensitive receptors, such as local residents, and other receptors, such as visitors to the local area, outweigh the benefits of the project. Coastal areas are particularly vulnerable to visual intrusion because of the potential high visibility of development on the foreshore, on the skyline and affecting views along stretches of undeveloped coast.*
- 453 In response to this, the potential effects of the temporary and permanent elements of AyM on the Landscape and Seascape are assessed within the ES (application ref: 6.2.10). It is considered that, whilst significant effects exist, those effects are in the context of a seascape characterised in part by existing offshore wind infrastructure, and in a region in which consultation has not demonstrated there to be significant concern or opposition amongst residential receptors.

- 454 EN-3 requires applicants to undertake a SVIA if the offshore wind farm will be visible from the shore. The SLVIA considers the effects of the offshore components of AyM as a result of changes to the seascape/ landscape as an environmental resource in its own right, as well as on people's views and visual amenity. The assessment considers potential effects within a 50km radius study area (the area that the tips of the WTGs are theoretically visible from) and uses a combination of seascape/ landscape character assessment, and computerised visual representations from a variety of sensitive viewpoints within the Zone of Theoretical Visibility (ZTV) through a site-specific survey to assess the potential effects. A full description of the assessment can be found within the ES (application ref: 6.2.10).
- 455 Limited and non-significant seascape, landscape and visual effects are assessed for the outer parts of the SLVIA study area, including from the English coast. The Offshore WTG array will not become a prevailing or defining visual element or seascape/ landscape characteristic to these areas. In addition, there will be no significant effects on the seascape, landscape and visual resource of Flintshire, Wrexham, the special qualities of Snowdonia National Park or the Clwyddian Range and Dee Valley AONB.
- 456 All significant seascape, landscape and visual effects will be 'contained' with the area between the Isle of Anglesey, Gwynedd, Conwy, and Denbighshire, primarily within the terrestrial coastal areas of these districts where there are direct views of the open seas of Liverpool Bay, with significant effects at limited viewpoints within SNP. In particular, significant seascape, landscape and visual effects are geographically contained within 26 km of the array and specific to the areas, inshore waters and coastal edge of the northern coastline of Wales and the Isle of Anglesey.

- 457 Significant adverse effects are predicted on limited special qualities of the Isle of Anglesey AONB. As noted within the SLVIA ES Chapter however, whilst there are adverse effects and as such some potential perceived diminishment of three of the special qualities of the AONB, it is not considered to occur to such a degree that it would affect the overall integrity of the AONB or its inherent natural beauty and it would occur within a context and understanding of the need for change including accommodating alternative energy.
- 458 There would be direct changes to the elements and patterns of the seascape areas within which the AyM array area is located. These areas are identified as Seascape Character Area (SCA) F - North Wales Open Waters and SCA 28 - North-east of Anglesey. The effect on SCA F would be non-significant and the effect on the eastern part of SCA 28, in and around the AyM array area and southwards towards the Great Orme and Penmon Point would be significant but non-significant elsewhere within the SCA.
- 459 The assessment of representative viewpoints has found there would be significant visual effects at viewpoints within the northerly edge hills of SNP at VP 12: Conwy Mountain and VP 40: Above Capelulo – North Wales Path.
- 460 No significant effects on views from within settlement areas have been identified. Effects on the views gained by people using the Wales Coast Path have found to be significant from parts of Section i: Conwy Mountain. This is likely to occur along a combined length of approximately 3 km across the side slopes of Foel Lus and along the ridge of Conwy Mountain.
- 461 Effects on two Special Qualities of the SNP have been identified. These are: Tranquillity & solitude – Peaceful Areas and Diverse Landscapes. Whilst some significant visual effects have been found to occur within viewpoints within SNP, it has been assessed that the effects on the Special Qualities would not be significant. As such it is not considered that the SLVIA receptors within the SNP would be diminished to such a degree that it would affect the overall integrity of the SNP or its inherent natural beauty and it would occur within a context and understanding of the need for change including accommodating alternative energy.

- 462 All significant effects, within the SNP, IoA AONB, and wider region are considered adverse, long term, and reversible. This is also of note in the context of the potential night-time visual effects (which are subject to adaptive management measures).
- 463 The conclusion reached in the SLVIA is that in seascape, landscape and visual terms, although the array extends the influence of the existing wind energy characteristics of the seascape and results in some significant effects in combination with GyM on the character and views from the north Wales and Isle of Anglesey coasts, there is some limited scope for the array to be accommodated in this location. This conclusion is determined by professional judgement of an experienced Landscape Architect (the SLVIA does not provide an assessment of the planning balance). There remain a number of significant effects, however it is recognised through consultation responses that these would not be meaningfully reduced even with a significant reduction in the scale of WTGs, beyond those constructed at GyM. A reduction that is not supported in the NPS, to a WTG design that is not available, and as such is not considered economically feasible, and therefore deliverable.
- 464 The cumulative impact upon seascape character, historic seascape character and visual receptors during the construction, O&M, and decommissioning phases of AyM is presented in Table 10.14 of the SLVIA assessment (Document ref: 6.2.10). The assessment identified that the visual effects arising from additional cumulative changes, as a result of the array in combination with the cumulative projects will be significant.
- 465 The assessment of Landscape and Seascape effects has had regard to the relevant requirements for assessment set out in the extant and draft EN-1 and EN-3 NPSs and been carried out in accordance with those requirements.
- 466 The assessment has had regard to, and is in accordance with, the relevant policies identified regarding landscape and seascape in north Wales and Isle of Anglesey.

467 The construction, operation and decommissioning of AyM will be in accordance with the relevant NPSs and other identified material planning policy matters. The environmental information and assessment carried out for AyM demonstrates that whilst significant effects are anticipated there is some scope for these to be accommodated within the seascape, landscape character and in visual terms.

468 NPS EN-1 acknowledges that "*Virtually all nationally significant energy infrastructure projects will have effects on the landscape*".

469 Whilst AyM would lead to long term, reversible, significant adverse visual effects which should be afforded weight in the planning balance, this is substantially outweighed by the benefits of and identified need for the project.

470

6.15 Offshore Archaeology and Cultural Heritage

471 This topic is assessed in Volume 2, Chapter 11 (Marine and Coastal Archaeology and Historic Seascape Characterisation) of the ES (application ref: 6.2.11).

6.15.1 National Policy Statements: NPS EN-1

EN-1 Policy: Paragraph 5.8.9

Where a development site includes, or the available evidence suggests it has the potential to include, heritage assets with an archaeological interest, the applicant should carry out appropriate desk-based assessment and, where such desk-based research is insufficient to properly assess the interest, a field evaluation.

How has this been addressed?

472 A desk-based assessment has been undertaken to assess the archaeological interest of offshore heritage interests (Volume 4, Annex 11-1: Marine Archaeological Desk-based Assessment Technical Annex (application ref: 6.4.11.1)) and summarised in section 11.8 of the Chapter.

EN-1 Policy: Paragraph 5.8.10

The applicant should ensure that the extent of the impact of the proposed development on the significance of any heritage assets affected can be adequately understood from the application and supporting documents.

How has this been addressed?

- 473 The significance of the offshore heritage assets is included in section 13.7 of the Chapter. The impact of the development is discussed in sections 11.11 - 11.14.

6.15.2 National Policy Statements: NPS EN-3

EN-3 Policy: Paragraph 2.6.32

The [Planning Inspectorate] will need to be satisfied that the foundations will not have an unacceptable adverse effect on marine heritage assets.

How has this been addressed?

- 474 In order to address potential adverse effects, mitigation measures have been designed to protect any marine archaeological receptors of interest. With the implementation of the mitigation measures all effects should be reduced to minor negative significance or minor to moderate beneficial significance. (See sections 11.5 and 11.16 of the Chapter, with Table 11.12).

EN-3 Policy: Paragraph 2.6.139

Heritage assets can be affected by Offshore Wind Farm (OWF) development in two principal ways: from the direct effect of the physical siting of the development itself and from indirect changes to the physical marine environment.

How has this been addressed?

- 475 These potential effects have been assessed in sections 11.11 - 11.14 of the Chapter.

EN-3 Policy: Paragraph 2.6.140

Consultation with relevant statutory consultees (including English Heritage (CADW, CPAT and RCHAMW in Wales)) should be undertaken by the applicants at an early stage of the development.

How has this been addressed?

- 476 Consultation has been undertaken with the relevant authorities in Wales (See Table 2 of the Chapter).

EN-3 Policy: Paragraph 2.6.141

Assessment should be undertaken as set out in Section 5.8 of EN-1. Desk-based studies should take into account any geotechnical or geophysical surveys that have been undertaken to aid the wind farm design.

How has this been addressed?

- 477 An archaeological assessment of geophysical survey data was undertaken and the results for Volume 4, Annex 13-2: Archaeological Review of Geophysical and Geotechnical Data Technical Annex (application ref: 6.4.11.2) of this ES, and are summarised in Section 11.8 of the Chapter.

EN-3 Policy: Paragraph 2.6.142

Assessment should include the identification of any beneficial effects on the historic marine environment, for example through improved access or the contribution to new knowledge that arises from investigation.

How has this been addressed?

- 478 Beneficial effects have been identified in section 11.11.5 et seq of the Chapter.

EN-3 Policy: Paragraph 2.6.143

Where elements of an application (whether offshore or onshore) interact with features of historic maritime significance that are located onshore, the effects should be assessed in accordance with the policy at Section 5.8 in EN-1.

How has this been addressed?

- 479 The effects have been assessed in sections 11.11 – 11.14 of the Chapter.

EN-3 Policy: Paragraph 2.6.144

PINS should be satisfied that OWFs and associated infrastructure have been designed sensitively taking into account known heritage assets and their status (for example designated features).

How has this been addressed?

- 480 In order to address potential adverse effects, mitigation measures have been designed to protect any marine archaeological receptors of interest. With the implementation of the mitigation measures all effects should be reduced to minor negative significance or minor to moderate beneficial significance (see sections 11.11 – 11.14 of the Chapter, with a summary provided in Table 12).

EN-3 Policy: Paragraph 2.6.145

Avoidance of important heritage assets, including archaeological sites and historic wrecks, is the most effective form of protection and can be achieved through the implementation of AEZ around such heritage assets which preclude development activities within their boundaries.

How has this been addressed?

- 481 Avoidance will be achieved through the recommendation of AEZs, as outlined in the mitigation measures. The AEZs have been designed to protect any marine archaeological receptors of interest (see section 11.10 of the Chapter, with Table 9).

EN-3 Policy: Paragraph 2.6.146

Where requested by applicants, [Planning Inspectorate] should consider granting consents that allow for micro-siting to be undertaken within a specified tolerance. This allows changing to be made to the precise location of infrastructure during the construction phase so that account can be taken of unforeseen circumstances such as the discovery of marine archaeological remains.

How has this been addressed?

- 482 Micro-siting is recommended in the mitigation measures, that have been designed to protect any marine archaeological receptors of interest. Section 11.10 of the Chapter provides information about micro-siting, and paragraph 10 of the Chapter provides information about the ORPAD, to manage unexpected discoveries.

6.15.3 Other Policy Considerations

WNMP - SOC_05 Historic assets

Proposals should demonstrate how potential impacts on historic assets and their settings have been taken into consideration and should, in order of preference:

- a. avoid adverse impacts on historic assets and their settings; and/or*
- b. minimise impacts where they cannot be avoided; and/or*
- c. mitigate impacts where they cannot be minimised.*

If significant adverse impacts cannot be avoided, minimised or mitigated, proposals must present a clear and convincing case for proceeding.

Opportunities to enhance historic assets are encouraged.

How has this been addressed?

- 483 The mitigation measures have been designed to protect any marine archaeological receptors of interest (see section 11.10 et seq of the Chapter).
- 484 Whilst not specifically items of policy, the following guidance may be of relevance to the Secretary of State's decision making and so has been included for completeness:

Protection of Wrecks Act 1973: Section One and Two

- 485 This Act allows the Secretary of State to designate a restricted area around a wreck to prevent uncontrolled interference.

How has this been addressed?

- 486 There are no protected wrecks within the study area (see table 2 and section 11.8 *et seq* of the Chapter). The mitigation measures have been designed to protect any marine archaeological receptors of interest (see section 11.10 of the Chapter).

Ancient Monuments and Archaeological Areas Act 1979 (as amended)

- 487 Under this Act, the Secretary of State for Digital, Culture, Media and Sport (DCMS) can schedule any site which appears to be of national importance because of its historic, architectural traditional, artistic or archaeological interest. Additional controls are placed upon works affecting Scheduled Monuments and Areas of Archaeological Importance under the Act.

How has this been addressed?

- 488 There are no Scheduled Monuments or designated Areas of Archaeological Importance within the study area (see sections 11.11 *et seq*, of the Chapter).

Protection of Military Remains Act 1986:

- 489 This Act provides protection for designated military vessels and for all aircraft that crashed while in military service. The Act provides two types of protection: Protected Places (wrecks designated by name even if the location is not known) and Controlled Sites (sites designated by location). It is illegal to disturb or remove anything from sites. For Controlled Sites, it is illegal to conduct any operations (including diving or excavation) within the Controlled Site unless licensed to do so by the Ministry of Defence.

How has this been addressed?

- 490 There are no aircraft crash sites within the study area. See Section 11.8 of the Chapter.

- 491 The fuselage of an Avro Anson Bomber aircraft (2004) was recorded in the offshore ECC, however no aircraft remains were discovered. See Paragraph 97 of the Chapter.

Merchant Shipping Act 1995:

- 492 This Act sets out the procedures for determining ownership of underwater finds that turn out to be 'wreck', including ship, aircraft, hovercraft, parts of these, their cargo or equipment. Any recovered material must be reported to the Receiver of Wreck.

How has this been addressed?

- 493 The mitigation measures have been designed to protect any marine archaeological receptors of interest.
- 494 Archaeological Exclusion Zones (AEZ) are recommended around known features of anthropogenic origin of archaeological interest (A1 anomalies) and historic records of archaeological material (A3 anomalies). See Section 11.10.2 and Table 9 of the Chapter.
- 495 Any discoveries of unexpected material will be reported through the Protocol for Archaeological Discoveries (PAD) and reported to the Receiver of Wreck. See Section 11.10.6 of the Chapter.

6.15.4 Considerations for the Secretary of State

- 496 Part 5.8 of EN-1 sets out matters relevant to the Historic Environment at national level. It is recognised that 'the construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment'. It is recognised in EN-1 that producing the energy required by the UK, significant infrastructure will be required, including large scale projects.
- 497 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.1.3 requires that the following matters relevant to the Historic Environment are taken into account when considering any proposed development:

"potential adverse impacts, including long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts".

498 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts, at national, regional and local levels"*.

499 Paragraphs 5.8.11 to 5.8.18 set out matters the Secretary of State should have regard to in reaching a decision, including proposed mitigation, specifically in respect of matters relating to the Historic Environment. It is confirmed that the Secretary of State should seek to identify and assess the particular significance of any heritage asset that may be affected by the proposed development, including by development affecting the setting of a heritage asset taking account, *inter alia*, of:

- *Evidence provided with the application;*
- *Any designation records;*
- *The Historic Environment Record, and similar sources of information;*
- *The heritage assets themselves;*
- *The outcome of consultations with interested parties; and*
- *Where appropriate and when the need to understand the significance of the heritage asset demands it, expert advice.*

500 Specifically, with regard to Offshore Archaeology and Cultural Heritage, EN-3 requires that the Secretary of State should be satisfied that AyM has been designed sensitively *taking into account known heritage assets and their status, incusing features like protected wrecks* (2.6.144 of EN-3).

501 Table 12 of Volume 2, Chapter 11: Offshore Archaeology and Cultural Heritage of the Environmental Statement provides a summary of the potential environmental effects and identifies approaches to mitigation and proposed monitoring during the construction phase, O&M phase, and decommissioning phase.

502 The assessment of Offshore Archaeology and Cultural Heritage has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and been carried out in accordance with those requirements.

503 The construction, operation and decommissioning of AyM will be in accordance with the relevant NPSs and other identified material planning policy matters.

504 The environmental information and assessment carried out for AyM concludes that there are no significant adverse effects but the potential for Moderate beneficial effects. The potential positive effect on offshore archaeology should therefore carry some additional weight to the benefits of AyM when considering the planning balance.

6.16 Other Marine Users and Activities

505 This topic is assessed in Volume 2, Chapter 12 (Infrastructure and Other Users) of the ES (application ref: 6.2.12).

6.16.1 National Policy Statements: NPS EN-1

506 No relevant policy requirements for infrastructure and other users have been identified in EN-1.

6.16.2 National Policy Statements: NPS EN-3

EN-3 Policy: Paragraph 2.6.179

507 Applicants should undertake an assessment of the potential effect of the proposed development on existing or permitted offshore infrastructure or activities.

How has this been addressed?

508 This document includes an assessment of the potential effects of the proposed development on marine infrastructure and other users of the marine environment. See section 12.10 *et seq.*

EN-3 Policy: Paragraphs 2.6.180 – 2.6.181

509 Applicants should establish stakeholder engagement with interested parties in the offshore sector in the development phase of the proposed OWF, with an aim to resolve as many issues as possible prior to the submission of an application. Such stakeholder engagement should continue throughout the life of the development.

How has this been addressed?

- 510 Consultation with potentially affected stakeholders has been carried out from the early stages of the project and continues through the pre-application consultation process. Details of consultation are presented in Table 3 of the Chapter.

EN-3 Policy: Paragraph 2.6.184

- 511 Applicants should ensure site selection and site design of the proposed OWF has been made with a view to avoiding or minimising disruption or economic loss or adverse effect on safety to other offshore industries.

How has this been addressed?

- 512 The proposed development has been designed to avoid or minimise effects on infrastructure and other users of the marine environment. Embedded mitigation is described in Table 11 of the ES Chapter.

EN-3 Policy: Paragraph 2.6.183

- 513 Where a wind farm potentially affects other offshore infrastructure or activity, a pragmatic approach should be employed by the [Secretary of State]. The [Secretary of State] should expect the applicant to minimise negative impacts and reduce risks to as low as reasonably practicable.

How has this been addressed?

- 514 The AyM impact assessment describes the steps that the applicant has taken to avoid or reduce the impacts of the development (Table 11 of the ES Chapter).

EN-3 Policy Paragraph 2.6.184

- 515 The [Secretary of State] should be satisfied that site selection and site design of the wind farm has been made with a view to avoiding or minimising disruption or economic loss or any adverse effects on safety to other offshore industries. The [Secretary of State] should not consent applications, which pose unacceptable risks to safety after mitigation measures have been considered.

EN-3 Policy Paragraph 2.6.186

- 516 Where schemes have been carefully designed and the necessary consultation has been undertaken at an early stage, mitigation measures may be found that can negate or reduce effects on other offshore infrastructure or operations to a level sufficient to enable the [Secretary of State] to grant consent.

EN-3 Policy Paragraphs 2.6.187 and 2.6.188

- 517 In relation to mitigation, detailed discussions between the applicant and the relevant consultees should have progressed as far as reasonably possible prior to the submission of an application. As such, appropriate mitigation should be included in any application and ideally agreed between relevant parties. Paragraph 2.6.188 explains that in some circumstances, the Secretary of State may wish to consider the potential to use requirements involving arbitration as a means of resolving how adverse impacts on other commercial activities will be addressed.

How has this been addressed?

- 518 AyM has been sited to minimise conflicts with marine infrastructure and other users, where possible. In cases where conflict has been highlighted in early consultation, the applicant has, where appropriate and feasible, proposed mitigation measures to reduce or negate impacts (Table 11 of the ES Chapter). See also Volume 1, Chapter 4: Site Selection and Alternatives (application ref: 6.1.4).

6.16.3 Other Policy Considerations

Welsh National Marine Plan

- 519 The WNMP provides policies to secure safeguarding of existing uses of the marine environment. SAF_01 is the relevant policy in this regard, and provides the following:

SAF_01: Safeguarding existing activity

a. Proposals likely to have significant adverse impacts upon an established activity covered by a formal application or authorisation must demonstrate how they will address compatibility issues with that activity.

Proposals unable to demonstrate adequate compatibility must present a clear and convincing case for the proposal to progress under exceptional circumstances.

b. Proposals likely to have significant adverse impacts upon an established activity not subject to a formal authorisation must demonstrate how they will address compatibility issues with that activity.

Proposals unable to demonstrate adequate compatibility must present a clear and convincing case for proceeding.

Under SAF 01 a and b, compatibility should be demonstrated through, in order of preference:

- Avoiding significant adverse impacts on those activities, and/or*
- Minimising significant adverse impacts where these cannot be avoided; and/or*
- Mitigating significant adverse impacts where they cannot be minimised*

How has this been addressed?

520 Impacts on displacement/ deviation associated with other marine users of the area are assessed within Sections 12.10, 12.11, and 12.12 of the ES Chapter. It is concluded that significant effects have been avoided in all cases. There is therefore no impediment to policy SAF_01, either in the context of other marine users and infrastructure or shipping and navigation (section 6.13 of this document).

521 No other policy considerations were identified for other infrastructure.

6.16.4 Considerations for the Secretary of State

522 Paragraphs 2.6.182 to 2.6.186 of NPS EN-3 sets out the policy for the Secretary of State's decision making in relation to infrastructure.

523 It is recognised in EN-1 that producing the energy required by the UK, significant infrastructure will be required, including large-scale projects.

524 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.1.2 requires that:

The [Secretary of State] should start with a presumption in favour of granting consent to applications for energy NSIPs

525 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to “*environmental, social and economic benefits and adverse impacts, at national, regional and local levels*”.

526 Paragraph 2.6.183 relates to the Secretary of State's decision making, and sets out that:

Where a proposed offshore wind farm potentially affects other offshore infrastructure or activity, a pragmatic approach should be employed by the [Secretary of State]. Much of this infrastructure is important to other offshore industries as is its contribution to the UK economy. In such circumstances the [Secretary of State] should expect the applicant to minimise negative impacts and reduce risks to as low as reasonably practicable.

527 Paragraph 2.6.184 states that:

As such, the [Secretary of State] should be satisfied that the site selection and site design of the proposed offshore wind farm has been made with a view to avoiding or minimising disruption or economic loss or any adverse effect on safety to other offshore industries. The [Secretary of State] should not consent applications which pose unacceptable risks to safety after mitigation measures have been considered"

528 Table 13 of Volume 2, Chapter 14: Infrastructure and Other Users of the ES provides a summary of the potential environmental effects, and identifies approaches to mitigation and proposed monitoring during the construction phase, O&M phase, and decommissioning phase.

529 The assessment of infrastructure and other users of the marine environment has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and been carried out in accordance with those requirements.

530 The construction, operation and decommissioning of AyM will be in accordance with the relevant NPSs and other identified material planning policy matters.

531 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regards to the EIA Regulations and therefore effects on infrastructure and other marine users should not weigh against the substantial benefits of AyM when considering the planning balance.

6.17 Military and Civil Aviation

532 This topic is assessed in Volume 2, Chapter 13 (Aviation and Radar) of the ES (application ref: 6.2.13).

6.17.1 National Policy Statements: NPS EN-1

EN-1: Paragraphs 5.4.10 to 5.4.13

533 Informs that if the proposed development could have an effect on civil and military aviation then the assessment should be considered:

- *Consult the Ministry of Defence (MoD), the Civil Aviation Authority (CAA) and NATS and any aerodrome – licensed or otherwise – likely to be affected by the proposed development in preparing an assessment of the proposal on aviation or other defence interests.*
- *Any assessment of aviation or other defence interests should include potential impacts of the project upon the operation of Communication, Navigation and Surveillance (CNS) infrastructure, flight patterns (both civil and military), other defence assets and aerodrome operational procedures.*
- *Assess the cumulative effects of the project with other relevant projects in relation to aviation and defence.*

How has this been addressed

534 Table 2 of the Chapter provides the results of consultation activity. The assessment of civil and military aviation flight patterns and infrastructure is provided in section 13.10 et seq of the ES Chapter. Cumulative effects are discussed within section 13.13.

EN-1 Paragraph 5.4.15

535 Informs that if there are conflicts between the Government's energy and transport policies and military interests in relation to the application, the decision maker should expect the relevant parties to have made appropriate efforts to work together to identify realistic and pragmatic solutions to the conflicts. In so doing, the parties should seek to protect the aims and interests of the other parties as far as possible.

How has this been addressed

- 536 Table 2 of the Chapter provides the results of consultation activity undertaken, with the agreed Mitigation principles provided in section 13.9 *et seq* of the Chapter.

EN-1 Paragraph 5.4.16

- 537 Advises that there are statutory requirements concerning the fitting of lighting to tall structures. Where lighting is requested on a structure that goes beyond statutory requirements by any of the relevant aviation and defence consultees, the decision maker should satisfy itself of the necessity of such lighting taking into account the case put forward by the consultees. The effect of such lighting on the landscape and ecology may be a relevant consideration.

How has this been addressed

- 538 Lighting requirements are provided in section 13.9 of the Chapter.

EN-1 Paragraph 5.4.17

- 539 Informs that where, after reasonable mitigation, operational changes, obligations and requirements have been proposed, the decision maker considers that:

- *A development would prevent a licensed aerodrome from maintaining its licence;*
- *The benefits of the proposed development are outweighed by the harm to aerodromes serving business, training or emergency service needs, taking into account the relevant importance and needs for such aviation infrastructure;*
- *The development would significantly impede or compromise the safe and effective use of defence assets or significantly limit military training; or*
- *The development would have an impact on the safe and efficient provision of en-route air traffic control services for civil aviation, in particular through an adverse effect on the infrastructure required to support communications, navigation or surveillance systems then consent should not be granted.*

How has this been addressed

- 540 The assessment of civil and military aviation flight patterns and infrastructure is provided in section 13.10 *et seq.* Cumulative effects are discussed within section 13.13 of the Chapter. The conclusions drawn are that there are no significant effects.

6.17.2 National Policy Statements: NPS EN-3

EN-3 Paragraph 2.6.187

- 541 Informs that detailed discussions between the applicant for the OWF and the relevant consultees should have progressed as far as reasonably possible prior to the submission of an application to the decision maker. As such, appropriate mitigation should be included in any application to the decision maker, and ideally agreed between relevant parties.

How has this been addressed?

- 542 Mitigation principles, as agreed with stakeholders as appropriate, are provided in section 13.9 *et seq.* of the Chapter, with a full record of consultation captured in Table 2 of the Chapter.

EN-3 Paragraph 2.6.107

- 543 Indicates that aviation and navigation lighting should be minimised to avoid attracting birds, taking into account impacts on safety.

How has this been addressed?

- 544 Lighting requirements are provided in section 13.9 of the Chapter and are subject to appropriate adaptive management to reduce the risk of significant effect whilst maintaining appropriate safety standards.

6.17.3 Other policy considerations

- 545 There are no other relevant policy considerations.

6.17.4 Considerations for the Secretary of State

546 Paragraphs 5.4.14 to 5.4.21 of EN-1 set out matters the Secretary of State will need to be satisfied that the effects on civil and military aerodromes, aviation technical sites and other defence interests have been addressed by the applicant and any necessary assessment of the proposal on aviation or defence interests has been carried out, along with any relevant mitigation.

547 The Applicant has consulted all relevant aviation and communications stakeholders as part of the EIA process and taken those responses into consideration in preparation of the application, along with all relevant legislation and guidance.

548 Aviation lighting requirements are outlined in Volume 2, Chapter 1: Project Description (Offshore) (applicant ref: 6.2.1) as well as in Volume 2, Chapter 10: Seascape, Landscape and Visual Impact Assessment (application ref: 6.2.10). Lighting requirements will satisfy the requirements of CAP 393 (Article 223).

549 Paragraph 5.4.17 of NPS EN-1 requires that:

Where, after reasonable mitigation, operational changes, obligations and requirements have been proposed, the [Secretary of State] considers that:

A development would prevent a licensed aerodrome from maintaining its licence;

The benefits of the proposed development are outweighed by the harm to aerodromes serving business, training or emergency service needs;

The development would significantly impede or compromise the safe and effective use of defence assets or significantly limit military training; or

The development would have an impact on the safe and efficient provision of en route air traffic control services for civil aviation; consent should not be granted.

550 AyM has been sited to minimise conflicts with aviation, military and communication receptors. In cases where conflict has been highlighted by early consultation, the Applicant has, where appropriate, proposed mitigation measures to reduce or negate impacts. Embedded mitigation measures for aviation, military and communication receptors are presented in Section 13.9 of Volume 2, Chapter (application ref: 6.2.13), with additional mitigation measures described in Table 8.

551 NPS EN-1 paragraph 5.4.18 states that *"Where a proposed energy infrastructure development would significantly impede or compromise the safe and effective use of civil or military aviation or defence assets and/ or significantly limit military training, the [Secretary of State] may consider the use of 'Grampian', or other forms of condition which relate to the use of future technological solutions to mitigate impacts"*. Paragraph 5.4.19 then requires that:

"Mitigation for infringement of Obstacle Limitation Surfaces (OLS) may include:

Amendments to layout or scale of infrastructure;

Changes to operational procedures of the aerodromes in accordance with relevant guidance; and

Installation of obstacle lighting and/ or by notification in Aeronautical Information Service publications.

552 For CNS infrastructure, the UK military Low Flying system (including Tactical Training Areas and designated air traffic routes, mitigation may also include:

Lighting;

Operational airspace changes; and

Upgrading of existing CNS infrastructure. Mitigation for effects on radar, communications and navigational systems may include reducing the scale of a project".

553 The assessment of aviation and radar has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.

- 554 The construction, operation and decommissioning of AyM will be carried out in accordance with the relevant NPSs and other identified material planning policy matters. The environmental information and assessment carried out for AyM demonstrates that there is no conflict with any of the conditions set out by the NPSs.
- 555 The environmental information and assessment carried out for AyM concludes that there are potentially significant effects with regard to the EIA regulations. Suitable mitigation of the effects on the Great Dun Fell and St Anne's Primary Surveillance Radar has been identified by NATS during the consultation completed to date (see Table 2 of the ES Chapter). The mitigation solution will be subject to commercial agreement between the Applicant and NATS and will be implemented by radar blanking of the affected areas of the Great Dun Fell and St Anne's Primary Surveillance Radars which will remove all wind turbine radar returns; however, all other radar returns in the blanked area will also be removed. To resolve this, radar data from the NATS Clee Hill Primary Surveillance Radar (which does not detect the wind turbines) will 'infill' the 'blanked' areas ensuring 'clutter free' radar coverage above the array. With agreed mitigation in place, the impact will be negligible and the residual effect to the Great Dun Fell and St Anne's PSRs will be not significant.
- 556 Radar impacts can be successfully mitigated and as such do not weigh against the substantial benefits of AyM.

6.18 Landscape and Visual Impact Assessment

- 557 This topic is assessed in Volume 3, Chapter 2 (Landscape Visual Impact Assessment) of the ES (application ref: 6.3.2).

6.18.1 National Policy Statements: NPS EN-1

- 558 Landscape and Visual matters, including the assessment of seascape effects, are considered within NPS EN-1 at Section 5.9 (Landscape and visual). Paragraphs 5.95 to 5.97 set out the matters which the assessment may include.

- 559 EN-1 requires that applicants carry out a landscape and visual assessment and report it in the Environmental Statement and have regard to guidance produced to assist in the assessment. The assessment should include the effects during construction, and O&M of the project on landscape components and landscape character (5.95 and 5.96).
- 560 EN-1 also states that the applicant's assessment should include the visibility and conspicuousness of the project and potential effects on local amenity and nature conservation (5.97).

How has this been addressed?

- 561 EN-1 is considered to be the primary policy with respect to the approach to the assessment of potential effects on Landscape, and the Applicant has carried out an assessment that follows this approach
- 562 The assessment has characterised the relevant landscape baselines, drawing on relevant national and local planning policy, landscape character areas and physical landscape features. This has been supplemented through consultation with local planning authorities. Further information, including photomontages, has been obtained through field work. The methodology used to inform the baseline is set out in more detail in the Landscape and Visual Impact Assessment Chapter of the ES.

6.18.2 National Policy Statements: NPS EN-3

- 563 NPS EN-3 acknowledges that generic landscape and visual impacts are considered in EN-1 and provides further guidance on the assessment of seascape and visual effects (see Section 6.14 of this document).
- 564 Paragraph 2.4.2 of NPS EN3 advises – '*Proposals for renewable energy infrastructure should demonstrate good design in respect of landscape and visual amenity, and in the design of the project to mitigate impacts such as noise and effects on ecology.*'

How has this been addressed?

- 565 The assessment has followed guidance set out in EN-1, as set out in the sections above. The mitigation of landscape and visual effects through good design are considered within the LVIA. See section 2.9 of the LVIA Chapter of the ES.

6.18.3 National Policy Statements: EN-5

Paragraph 2.8.2

- 566 Advises – *‘New substations, sealing end compounds and other above ground installations that form connection, switching and voltage transformation points on the electricity networks can also give rise to landscape and visual impacts. Cumulative landscape and visual impacts can arise where new overhead lines are required along with other related developments such as substations, wind farms and/or other new sources of power generation’.*

How has this been addressed

- 567 The proposed onshore ECC is to be underground, thereby minimising landscape and visual effects. The LVIA has assessed the effects of the underground onshore ECC and OnSS in sections 2.10, 2.11 and 2.12 of the ES Chapter.

6.18.4 Other Policy Considerations

Planning Policy Wales 11 6.3: Landscape

- 568 Section 6.3 Landscape advises that: *“Landscape policy is guided by the European Landscape Convention.”*
- 569 The landscape of Wales is stated as a key consideration when developing policies and when proposing development.

How has this been addressed?

- 570 Effects on landscape character are assessed in section 2.11 of the ES Chapter.

Planning Policy Wales 11 6.3.3: Landscape

571 Section 6.3.3 of PPW11 notes that:

“Collaboration and engagement with adjacent planning authorities, Natural Resources Wales (NRW), Cadw and the third sector will be necessary to draw on a wide range of expertise and evidence. This means:

- ensuring Wales contributes to meeting international responsibilities and obligations for landscapes;*

ensuring statutorily designated sites are properly protected and managed;

- ensuring that the value of all landscapes for their distinctive character and special qualities is protected; and*

- ensuring the opportunities landscapes provide for tourism, outdoor recreation, local employment, renewable energy and physical and mental health and well-being are taken into account and multiple well-being benefits for people and communities secured.*

6.3.4 Where adverse effects on landscape character cannot be avoided, it will be necessary to refuse planning permission.’

How has this been addressed?

572 The LVIA includes consideration of effects on the characteristics of local landscapes including landscape features, landscape character areas and landscape designations.

573 Effects on landscape character and landscape designations are assessed in section 2.11 of the ES Chapter.

Planning Policy Wales 11 6.3.12: Landscape

574 PPW-11 6.3.12 notes that in relation to the Characteristics of Local Landscapes:

Planning Authorities should provide for the conservation and, where appropriate, enhancement of local landscapes.

This may include policies for landscape features, characteristics and qualities of local significance, and the designation of Special Landscape Areas (SLAs). Planning authorities should state which features, characteristics or qualities require extra protection, and explain how the policy or designation will achieve this protection.

How has this been addressed?

- 575 The LVIA includes consideration of effects on the characteristics of local landscapes including landscape features, landscape character areas and landscape designations.
- 576 Effects on landscape character and landscape designations are assessed in section 2.11 of the ES Chapter.

Planning Policy Wales 11 6.3.12: Landscape

- 577 PPW-11, Section 6.3.20, notes the importance of LANDMAP as an “*information resource, methodology and monitoring baseline for the landscapes of Wales*” LANDMAP assessments “*can help to inform development management decisions*”.

How has this been addressed?

- 578 Section 2.7.2 of the ES Chapter utilises LANDMAP, and Annex 2.1 of the Chapter - LANDMAP assessment (application ref: 6.5.2.1) provides a detailed LANDMAP assessment

Future Wales – The National Plan 2040

Policy 9 – Resilient Ecological Networks and Green Infrastructure

‘To ensure the enhancement of biodiversity, the resilience of ecosystems and the provision of green infrastructure, the Welsh Government will work with key partners to:

identify areas which should be safeguarded and created as ecological networks for their importance for adaptation to climate change, for habitat protection, restoration or creation, to protect species, or which provide key ecosystems services, to ensure they are not unduly compromised by future development; and

identify opportunities where existing and potential green infrastructure could be maximised as part of placemaking, requiring the use of nature-based solutions as a key mechanism for securing sustainable growth, ecological connectivity, social equality and well-being.’

How has this been addressed?

- 579 The mitigation of landscape and visual effects through good design are considered within the LVIA. See section 2.9 of ES Chapter. Where required, appropriate mitigation measures including details of reinstatement and landscaping have been set out in the ES Chapter and as part of the Outline Landscape and Ecological Management Plan (application ref: 8.4).

Policy 17 – Renewable and Low Carbon Energy and Associated Infrastructure

'The Welsh Government strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs. In determining planning applications for renewable and low carbon energy development, decision-makers must give significant weight to the need to meet Wales' international commitments and our target to generate 70% of consumed electricity by renewable means by 2030 in order to combat the climate emergency.'

'New strategic grid infrastructure for the transmission and distribution of energy should be designed to minimise visual impact on nearby communities. The Welsh Government will work with stakeholders, including National Grid and Distribution Network Operators, to transition to a multi-vector grid network and reduce the barriers to the implementation of new grid infrastructure'

How has this been addressed?

- 580 The Site Selection and Alternatives Chapter of the ES sets out the iterative process that has influenced the design of AyM.
- 581 As described in Volume 3, Chapter 1 – Onshore Project Description (application ref: 6.3.1), the refinement of the OnSS zone and onshore ECC has been carefully considered alongside the potential for landscape and visual effects and mitigation. See also section 2.9 of the LVIA Chapter.

Policy 18 – Renewable and Low Carbon Energy Developments of National Significance

- 582 The following Policy 18 criteria relate to the AyM LVIA:

'1. outside of the Pre-Assessed Areas for wind developments and everywhere for all other technologies, the proposal does not have an unacceptable adverse impact on the surrounding landscape (particularly on the setting of National Parks and Areas of Outstanding Natural Beauty);

2. there are no unacceptable adverse visual impacts on nearby communities and individual dwellings;

The cumulative impacts of existing and consented renewable energy schemes should also be considered.'

How has this been addressed?

- 583 Effects on landscape character and landscape designations are assessed in section 2.11 of the Chapter.
- 584 The visual effects resulting from the onshore elements of AyM during construction and operation are assessed in the LVIA in section 2.12 of the Chapter.
- 585 Cumulative landscape and visual effects of the onshore infrastructure considered in section 2.14 of the Chapter.

Denbighshire County Council adopted LDP 2006-2021

Policy VOE2 – Area of Outstanding Natural Beauty and Area of Outstanding Beauty

'In determining development proposals within or affecting the Area of Outstanding Natural Beauty (AONB) and Area of Outstanding Beauty (AOB), development that would cause unacceptable harm to the character and appearance of the landscape and the reasons for designation will not be permitted.'

How has this been addressed?

- 586 The LVIA includes consideration of effects on landscape character including landscape designations.
- 587 Effects on landscape character and landscape designations are assessed in section 2.11 of the ES Chapter.

Objective - 16 Areas of Protection

'The Local Development Plan will seek to protect and enhance the natural and built heritage of the County including aspects such as landscape, biodiversity, geo-diversity, designated sites and buildings and protected species. Environmental services and goods will additionally be enhanced and developed.'

How has this been addressed?

- 588 The LVIA includes consideration of effects on the characteristics of local landscapes including landscape features.
- 589 Physical effects on the landscape are assessed in section 2.10 of the ES Chapter.

Policy VOE 1 – Key Areas of importance

'The following areas will be protected from development that would adversely affect them. Development proposals should maintain and, wherever possible, enhance these areas for their characteristics, local distinctiveness, and value to local communities in Denbighshire:

Statutory designated sites for nature conservation;

Local areas designated or identified because of their natural landscape or biodiversity value;

Sites of built heritage; and

Historic Landscape, Parks and Gardens.'

How has this been addressed?

- 590 The LVIA includes consideration of effects on the characteristics of local landscapes including landscape features, landscape character areas and landscape designations.
- 591 Physical effects on the landscape are assessed in section 2.10 of the ES Chapter.
- 592 Effects on landscape character and landscape designations are assessed in section 2.11 of the ES Chapter.

Policy VOE 10 Renewable energy technologies

Development proposals which promote the provision of renewable energy technologies may be supported providing they are located so as to minimise visual, noise and amenity impacts and demonstrate no unacceptable impact upon the interests of nature conservation, wildlife, natural and cultural heritage, landscape, public health and residential amenity. In areas that are visually sensitive, including the AONB, Conservation Areas, World Heritage Site and Buffer Zone and in close proximity to historic buildings, visually intrusive technologies will not be permitted unless it can be demonstrated that there is no negative impact on the designation or there is an overriding public need for the development.

How has this been addressed?

- 593 As described in Volume 3, Chapter 1 – Onshore Project Description (application ref: 6.3.1), the refinement of the onshore substation and onshore export cable corridor has been carefully considered alongside the potential for landscape and visual effects. See also section 2.9 of the ES Chapter for mitigation.

6.18.5 Considerations for the Secretary of State

- 594 Paragraphs 5.9.8 to 5.9.20 of EN-1 sets out a series of principles that will be taken into account when reaching a decision. Paragraph 5.9.8 states that projects need to be designed carefully, taking account of the potential impact on the landscape and to minimise harm to the landscape by reasonable mitigation. Table 18 and 19 of Volume 3, Chapter 2: Onshore Landscape and Visual Impact Assessment (application ref: 6.3.2) provides a summary of the potential effects during the construction, O&M and decommissioning phases of AyM, with embedded mitigation summarised in Section 2.9. During development, the applicant has sought to bury cables where possible.
- 595 EN-1 states that *all proposed energy infrastructure is likely to have visual effects for many receptors around proposed sites. The [Secretary of State] will have to judge whether the visual effects on sensitive receptors outweigh the benefits of the project.* In response to this, the potential effects of the temporary and permanent elements of AyM on landscape and visual receptors have been assessed in the ES.

- 596 During the construction phase, the assessment concluded that there would be significant, short-term, reversible landscape character effects on the landscape character area as a result of the cable route and landfall. The assessment also concluded that there would be significant, short-term, reversible visual effects on one viewpoint assessed as a result of the onshore substation, and one viewpoint as a result of the onshore cable route and landfall (in the case of landfall options 2 and 3). No significant physical landscape effects or effects to landscape character from the substation were predicted. During the O&M and decommissioning phases, no significant effects were predicted.
- 597 The assessment of Onshore Landscape and Visual Impacts has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.
- 598 The construction, operation and decommissioning of AyM will be carried out in accordance with the relevant NPSs and other identified material planning policy matters. The environmental assessment carried out for AyM demonstrates that significant landscape effects are anticipated during the construction phase as a result of the landfall, cable route, and onshore substation. Significant visual effects are also anticipated during the construction phase on two of the viewpoints assessed as a result of the landfall, cable route and onshore substation. Significant effects were identified during the O&M phase of the onshore substation, decreasing from year 10 as planting at the onshore substation establishes.
- 599 Whilst the onshore elements of AyM will give rise to landscape and visual effects within the onshore LVIA study area, the LVIA has assessed that there are limited residual effects to the landscape and visual resource as a result of the O&M phase of the proposed substation over the long-term (>10 years). Most significant landscape and visual effects will be limited to localised effects during construction of the substation, cable route and landfall options. All developments of this scale are likely to give rise to some effects on landscape character and visual amenity. However, the LVIA has, with appropriate mitigation as detailed in the OLEMP, shown that the landscape has capacity to accommodate the proposed development without long-term significant adverse effects on the landscape and visual resource.

600 Whilst AyM may lead to temporary significant adverse effects during construction, this is balanced against the significant benefit of the project in the delivery of renewable energy. This combined with any long-term effects being mitigated as far as reasonably practicable through planting, it is concluded that overall this should not be given great weight against the substantial benefit of AyM when considering the overall planning balance.

6.19 Socio-Economics

601 This topic is assessed in Volume 3, Chapter 3 (Socioeconomics) of the ES (application ref: 6.3.3).

6.19.1 National Policy Statements: NPS EN-1

EN-1 Policy: Paragraph 5.12.3

The assessment should consider all relevant socio-economic effects, which may include the creation of jobs and training opportunities.

How has this been addressed?

602 The effects of AyM's construction activity on employment are considered in section 3.10 *et seq.* Employment effects associated with O&M activity are assessed in section 3.11. The employment effects during the decommissioning phase are assessed in section 3.12.

EN-1 Policy: Paragraph 5.12.3

603 The assessment should consider all relevant socio-economic effects, which may include the provision of additional local services and improvements to local infrastructure, including the provision of educational and visitor facilities.

How has this been addressed?

604 All relevant socio-economic effects during the construction phase are considered in section 3.10. Effects during the O&M phase are considered in section 3.11. Effects during the decommissioning phase are considered in section 3.12.

EN-1 Policy: Paragraph 5.12.3

The assessment should consider all relevant socio-economic effects, which may include effects on tourism.

How has this been addressed?

- 605 The effects on tourism and recreation are addressed under Volume 3, Chapter 4: Tourism and Recreation (application ref: 6.3.4).

EN-1 Policy: Paragraph 5.12.3

The assessment should consider all relevant socio-economic effects, which may include the impact of a changing influx of workers during the different construction, O&M and decommissioning phases of the energy infrastructure.

How has this been addressed?

- 606 All relevant socio-economic effects during the construction phase are considered in section 3.10. Effects during the O&M phase are considered in section 3.11 of the ES Chapter. Effects during the decommissioning phase are considered in section 3.12.

EN-1 Policy: Paragraph 5.12.3

The assessment should consider all relevant socio-economic effects, which may include cumulative effects – if development consent were to be granted to for a number of projects within a region and these were developed in a similar timeframe, there could be some short-term negative effects, for example, a potential shortage of construction workers to meet the needs of other industries and major projects within the region.

How has this been addressed?

- 607 Addressed under the cumulative effects section of the Chapter (see section 3.13).

EN-1 Policy: Paragraph 5.12.6-5.12.7

[Planning Inspectorate] should have regard to the potential socio-economic effects of new energy infrastructure identified by the applicant and from any other sources that [Planning Inspectorate] considers to be both relevant and important to its decision. It should be reasonable for [Planning Inspectorate]

to conclude that little weight is to be given to assertions of socio-economic effects not supported by evidence (particularly in view of the need for energy infrastructure as set out in this NPS).

How has this been addressed?

- 608 The AyM assessment provides evidence for assessments of socio-economic effects as far as it is possible to do at this stage. All relevant socio-economic effects during the construction phase are considered in section 3.10. Effects during the O&M phase are considered in section 3.11. Effects during the decommissioning phase are considered in section 3.12.

EN-1 Policy: Paragraph 5.12.8

The assessment should consider any relevant positive provisions the applicant has made or is proposing to make to mitigate impacts (for example through planning obligations) and any legacy benefits that may arise as well as any options for phasing development in relation to socio-economic impacts.

How has this been addressed?

- 609 Provisions made to boost local capture of socio-economic effects are outlined as part of the additional enhancement measures and strategies discussed in section 3.9 and 3.10.

draft EN-1 Policy: Paragraph 5.13.3

- 610 Whilst not currently policy, the draft NPS has relevancy with regards the low carbon industry and socio economics states the assessment should consider *inter alia: the contribution to the development of low-carbon industries at the local and regional level as well as nationally.*

How has this been addressed?

- 611 The construction, operation and decommissioning of AyM has potential to support the development of low carbon industries (wind energy in particular, but also other energy types with similar supply chains), including associated supply chains. The potential contribution of the proposed development is considered in Section 3.10 of the Chapter for construction, Section 3.11 for operations and Section 3.12 for the decommissioning phase.

draft NPS EN-1: Paragraph 5.13.3

any indirect beneficial impacts for the region hosting the infrastructure, in particular in relation to use of local support services and supply chains

How has this been addressed?

- 612 The construction, operation and decommissioning of AyM has potential to support supply chain businesses located in North Wales and wider Wales. The indirect impact generated by local expenditure associated with the proposed development is considered in Section 3.10 for construction, Section 3.11 for operations and Section 3.12 for the decommissioning phase.

Draft NPS EN-1: Paragraph 5.13.9

The [Secretary of State] may wish to include a requirement that specifies the approval by the local authority of an employment and skills plan detailing arrangements to promote local employment and skills development opportunities, including apprenticeships, education, engagement with local schools and colleges and training programmes to be enacted

How has this been addressed?

- 613 As laid out in Table 3 of the Chapter, following consent, actions to ensure the skills and employment benefits that AyM can help deliver locally and nationally will be set out within the Supply Chain Plan required under the CfD supply chain process.

6.19.2 Other Policy Considerations

Future Wales – the National Plan 2040

Policy 17 – Renewable and Low Carbon Energy and Associated Infrastructure demonstrates the Government's support in principle for all renewable energy projects and technologies. Proposals should ensure there is no significant unacceptable detrimental impact on the surrounding natural environment and local communities and that the development delivers positive social, environmental, cultural and economic benefits.

Policy 18 – Renewable and Low Carbon Energy Developments of National Significance provides a decision-making framework for renewable and low carbon energy technologies. The planning system sets policy and takes

decisions on onshore schemes. The Welsh Government is supportive of offshore proposals and sees them as an important part of our future energy mix but they do not fall within the remit of Future Wales – The National Plan 2040. The on-shore development aspects of off-shore schemes are supported, for example cable landfall infrastructure. Strategic and Local Development Plans should identify and enable appropriate onshore development to support such schemes. Future Wales and the Welsh National Marine Plan address energy and reflect the energy hierarchy as set out in Planning Policy Wales. Both plans recognise that there are a number of opportunities to generate renewable energy across a variety of technologies both on-shore and off-shore which should be maximised to help meet the targets.

Policy 24 – North West Wales and Energy states 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, Wylfa Newydd and Trawsfynydd 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. New energy-related development in the region should support local and regional communities; provide jobs and investment in training and skills; and work with universities and businesses across the North West Wales region to co-ordinate and maximise new investment to support the wider region. Onshore developments associated with offshore renewable energy projects will be supported in principle.

How is this addressed?

- 614 The AyM socio-economic assessment considers the proposed development's impact on local communities along the North Wales coast. In addition, the assessment seeks to measure and quantify the impacts created at the North Wales level and identifies how the AyM project will support local and regional communities by providing jobs and investment training and maximising new investment to support the wider (i.e. North Wales) region.

Welsh National Marine Plan

- 615 Objective 3 of the WNMP supports the opportunity to sustainably develop marine renewable energy resources with the right development in the right place, helping to achieve the UK's energy security and carbon reduction objectives, whilst fully considering other's interests, and ecosystem resilience.

- 616 Sector supporting policy ELC_01 Low carbon energy (supporting) wind states:

ELC_01 a: Proposals for wind >350 MW will be considered by UK Government in accordance with relevant national policy. In determining an NSIP for a wind proposal, the decision maker will have regard to this plan. Any determination in relation to energy developments of any scale will be taken in accordance with this plan alongside any other relevant considerations.

ELC_01 b: In order to understand future opportunities for offshore wind development, including floating technologies, this plan supports strategic planning for the sector. Relevant public authorities and the sector are encouraged, in liaison with other interested parties, to collaborate to understand opportunities for the sustainable use of wind energy resources.

How is this addressed?

- 617 The assessment in the ES Chapter seeks to quantify the socio-economic benefits of AyM in line with the guidance set out by UK Government, as well as the relevant Wales national policy.

The Conwy Local Development Plan 2007-22 (Conwy County Borough Council, 2013)

SO4 – ‘identify and safeguard land to meet the community’s needs for more jobs and greater economic prosperity [...] focusing, in particular on higher value employment opportunities and skills development [...].’

SO11 – ‘reduce energy consumption through [...] the promotion of renewable energy developments where they have prospects of being economically attractive and environmentally and socially acceptable.’

SO13 – ‘to protect and improve accessibility to essential services and facilities, including open space, allotments, health, education and leisure.’

How has this been addressed?

- 618 The socio-economics assessment presented in Volume 3, Chapter 3 considers how the construction, operation, and decommissioning of AyM may contribute towards a higher quality of life by local communities by considering the economic benefits as well as any (adverse) impacts on local health and community facilities.

Denbighshire Local Development Plan Draft Preferred Strategy

- 619 A Draft Preferred Strategy (Denbighshire County Council, 2019) has been developed for the Replacement Local Development Plan 2018-2033. The strategic objectives set out reflect the continued relevance of the adopted Local Development Plan's vision and include among others:

Objective 3 – 'protecting, enhancing and sustainably developing Denbighshire's natural resources including green and blue infrastructure, renewable energy and mineral resources'

Objective 5 – 'supporting the provision, operation and development of infrastructure and services'

Objective 6 – 'supporting a healthy economy including proposals for strategic growth, key economic sectors and the rural economy'

How has this been addressed?

- 620 Given that all of the onshore infrastructure of AyM will be located within Denbighshire, the socio-economic assessment seeks to objectively weigh the overall benefits created by the proposed development (through local supply chain expenditure) against likely impacts (such as increased demand on healthcare services and on community facilities), mostly anticipated to be felt at the local level.

Gwynedd Council and Isle of Anglesey County Council Joint Local Development Plan 2011-2026 (Anglesey County Council and Gwynedd Council, 2017)

- 621 The Joint Local Development Plan area seeks to adapt and respond to climate change challenges and become a leading location for a range of low carbon and renewable energy sectors and knowledge-based industries. As such, strategic objective 6 encompasses the promotion of low carbon and renewable energy production within the area, among others.

622 The Plan also aspires to develop an appropriately skilled workforce by securing opportunities to improve its skills and education (strategic objective 11) and a varied, well-connected sustainable and broad economic base. To support the area's growing sectors, attract investment and retain and increase local jobs, strategic objective 10 aims to ensure a network of premises and employment sites of adequate quality and size in sustainable locations. Strategic objective 2 ensures that appropriate community or physical infrastructure is available or can be provided to create and support vibrant healthy communities.

How has this been addressed

623 The socio-economic assessment considers the extent to which North Wales and the local authorities within it have capacity to secure project-based expenditure, drawing upon evidence of skills and qualifications within the local labour market.

6.19.3 Considerations for the Secretary of State

624 Parts 2 and 3 of EN-1 set out matters relevant to socio-economic effects at a national level. It is recognised that "energy is vital to economic prosperity and social well-being and so it is important to ensure that the UK has secure and affordable energy". It is recognised in EN-1 that producing the energy required by the UK will require significant infrastructure, including large scale projects.

625 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.13 requires that the following matters relevant to Socio-Economics are taken into account when considering any proposed development:

"its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits; and

Its potential adverse impacts, including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts".

626 Paragraph 4.1.4 of EN-1 states that in reaching a decision, the Secretary of State should have regard to "environmental, social and economic benefits and adverse impacts at national, regional and local levels".

- 627 Paragraphs 5.12.6 to 5.12.9 set out matters the [Secretary of State] should have regard to in reaching a decision, including proposed mitigation, specifically in respect of socio-economic matters. It is confirmed that the [Secretary of State] must have regard to potential socio-economic effects and give limited weight to assertions not backed up by evidence. Regard should also be had to any positive provisions proposed to make or mitigate impacts and any legacy benefits that may arise.
- 628 Table 34 of the Socio-Economics Chapter of the ES (application ref: 6.3.3) provides a summary of the potential effects during the construction, O&M and decommissioning phases of AyM, as well as additional proposed enhancement or mitigation measures. The conclusions of the assessment are that the worst-case long-term scenario would be a minor beneficial effect in socio-economic terms, given the provision of jobs and investment in local and UK supply chain. In the short term, there are potential limited-duration adverse effects predicted for the local tourism economy which are associated with the construction phase and which reduce following completion of construction.
- 629 The assessment of Socio-Economics has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.
- 630 The construction, operation and decommissioning of AyM will be carried out in accordance with the relevant NPSs and other identified material planning policy matters.
- 631 Minor beneficial effects on socio-economics should be considered in addition to the substantial benefits of AyM as a whole. It should be also considered that these minor beneficial effects represent a worst case, and that other possible more likely scenarios, such as use of a local port (Port of Mostyn) would lead to greater beneficial effects.

6.20 Tourism and Recreation

- 632 This topic is assessed in Volume 3, Chapter 4 (Tourism and Recreation) of the ES (application ref: 6.3.4).

6.20.1 National Policy Statements: NPS EN-1

EN-1 Policy overview

- 633 The Government's policy is to ensure there is adequate provision of high-quality open space (including green infrastructure) and sports and recreation facilities to meet the needs of local communities. Open spaces, sports and recreational facilities all help to underpin people's quality of life and have a vital role to play in promoting healthy living. Green infrastructure in particular will also play an increasingly important role in mitigating or adapting to the impacts of climate change.

How has this been addressed?

- 634 Tourism plays a major role within the local economy of North Wales. As such, the assessment considers the effects of construction, operation, and decommissioning of AyM in Sections 4.10, 4.11 and 4.11.1 respectively.

EN-1 Policy: 5.10.20

- 635 Where green infrastructure is affected, the [Secretary of State] should consider imposing requirements to ensure the connectivity of the green infrastructure network is maintained in the vicinity of the development and that any necessary works are undertaken, where possible, to mitigate any adverse impact and, where appropriate, to improve that network and other areas of open space including appropriate access to new coastal access routes.

How has this been addressed?

- 636 This policy has guided the consideration of embedded mitigation (see section 4.9 of the ES Chapter).

EN-1 Policy: 5.10.24

- 637 Rights of way, National Trails and other rights of access to land are important recreational facilities for example for walkers, cyclists and horse riders. The Secretary of State should expect applicants to take appropriate mitigation measures to address adverse effects on coastal access, National Trails and other rights of way. Where this is not the case, the Secretary of State should consider what appropriate mitigation requirements might be attached to any grant of development consent.

How has this been addressed?

- 638 This policy has guided the consideration of embedded mitigation, including the development of an outline Public Access Management Plan (application ref: 8.13.8) which establishes the principles for management of PRow is provided as part of the Outline Code of Construction Practice (outline COCP (application ref: 8.13.8)) which allows for the maintenance of continuous access and management where necessary, during construction for all options.

EN-1 Policy: 5.12.3

- 639 This assessment should consider all relevant socio-economic effects, which may include effects on tourism.

How has this been addressed?

- 640 The effects of construction activity on tourism are assessed in section 4.10 of the ES Chapter. The effects of O&M activity are assessed in section 4.11. The effects of decommissioning on tourism are assessed in section 4.12.

6.20.2 Other Policy Considerations

Planning Policy Wales 11

- 641 PPW-11's primary objective is to ensure that the planning system contributes towards the delivery of sustainable development and improves the social, economic, environmental and cultural wellbeing of Wales.

642 It promotes the concept of placemaking into planning which includes *“Movement - Walking, cycling and public transport are prioritized to provide a choice of transport modes and avoid dependence on private vehicles. Well-designed and safe active travel routes connect to the wider active travel and public transport network and public transport stations and stops are positively integrated.”*

643 The Key Planning Principles include *“Maximising environmental protection and limiting environmental impact – Natural, historic and cultural assets must be protected, promoted, conserved and enhanced. Negative environmental impacts should be avoided in the wider public interest.”*

How has this been addressed?

644 The Proposed Development has been designed to reflect the requirements set out within Planning Policy Wales, and in particular seeks to improve the social and economic wellbeing of Wales by providing clean energy, whilst also generating opportunities for growing and diversifying the economy.

Denbighshire Adopted Local Development Plan

645 The following are the key policies within the current Local Plan which are of relevance to the tourism and recreation assessment.

646 Objective 8 - Public Open Space of the Adopted Local Development Plan (Denbighshire County Council, 2013):

“Local Development Plan will seek to protect existing open space and ensure that new developments make an adequate contribution to public open space provision”.

How is this addressed?

647 The development of AyM will not result in any permanent loss of open space.

648 Objective 15 – Tourism:

“seek to enhance and sustain sustainable tourism in the rural and coastal areas of the County”.

649 Policy RD 1 states that sustainable development and good standard design *“Does not unacceptably affect the amenity of local residents, other land and property users or characteristics of the locality by virtue of increased activity, disturbance, noise, dust, fumes, litter, drainage, light pollution etc., and provides satisfactory amenity standards itself’ and that it ‘provides safe and convenient access for disabled people, pedestrians, cyclists, vehicles and emergency vehicles together with adequate parking, services and manoeuvring space. Proposals should also consider impacts on the wider Rights of Way network surrounding the site”*.

How has this been addressed?

650 All PRoW and other access routes will be reinstated to their original condition or better, and there will be no permanent loss of amenity for onshore receptor users.

651 Policy BSC 11 – *Recreation and Open Space Existing recreation, public open space, allotments and amenity greenspace will be protected and where possible enhanced. Development that would result in the loss of public or private land with recreational and/or amenity value will only be permitted where alternative outdoor provision of equivalent or greater community benefit is provided.*

How is this addressed?

652 The development of AyM has sought (through good design and site selection) to avoid (where practical) any existing recreation and public open spaces. Where this is unavoidable (or not practical), the proposed development seeks to implement management measures to reduce and mitigate any adverse effects.

653 Policy PSE 13 – Coastal Tourism Protection Zones of the Adopted Local Development Plan (Denbighshire County Council, 2013) states that *within areas identified as coastal tourism protection zones proposals which would result in the loss of tourism facilities will not be supported. Such coastal areas include Rhyl and Prestatyn.*

How has this been addressed?

- 654 The proposed development of AyM will not result in any permanent loss of tourism facilities as per Policy PSE 13. However, it should be noted that the Temporary Construction Compound and access arrangements for the beach at both the Garford Road and Ferguson Avenue locations are within this designated area so there could be temporary impacts which will be managed to ensure they are minimised.

6.20.3 Considerations for the Secretary of State

- 655 EN-1 requires that applicants consult the local community where proposals are in place to build on open space, sports or recreational buildings or land and the loss of such facilities should only be considered when appropriate replacement facilities are provided. Consent should not be granted for development on open space, sports and recreational buildings and land unless an assessment has been carried out that determines it is surplus to requirements, or the benefits of the project outweigh the potential loss of such facilities. The Applicant does not propose the loss of any such facilities and therefore there is no conflict with EN-1.
- 656 EN-1 provides further guidance on impacts on coastal recreation sites and features, which states in particular, that applicants should take advantage of opportunities to maintain and enhance access to the coast, and in doing so regard shall be had to the overarching objective of creating a continuous signed and managed route around the coast as provided for in the Marine and Coastal Access Act 2009.
- 657 AyM interacts with the Wales Coastal Path. To manage the interaction with the Coastal Path, the applicant has prepared an outline Public Access Management Plan (application ref: 8.13.8) which establishes the principles for management of PRow is provided as part of the Outline Code of Construction Practice (outline COCP (application ref: 8.13.8)) which allows for the maintenance of continuous access and management where necessary, during construction for all options.

- 658 Table 40 of the Tourism and Recreation Chapter of the ES (application ref: 6.3.4) provides a summary of the potential effects during the construction, O&M and decommissioning phases of AyM, as well as additional proposed mitigation measures. Embedded mitigation measures are set out in Table 22.
- 659 The assessment of Tourism and Recreation has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.
- 660 The construction, operation and decommissioning of AyM will be carried out in accordance with the relevant NPSs and other identified material planning policy matters.
- 661 The environmental information and assessment carried out for AyM concludes that there are no long-term significant effects with regard to the EIA regulations and as such effects on tourism and recreation should not be weighed against the substantial benefits of AyM.

6.21 Onshore Biodiversity and Nature Conservation

- 662 This topic is assessed in Volume 3, Chapter 5 (Onshore Biodiversity) of the ES (application ref: 6.3.5).

6.21.1 National Policy Statements: NPS EN-1

EN-1 Policy: Paragraph 4.3.1.

Prior to an order to grant development consent, due consideration must be given by the [Secretary of State] as to whether the project may have a significant effect on a European site, or on any site to which the same protection is applied as a matter of policy, either alone or in combination with other plans or projects.

How has this been addressed?

- 663 NPS section 4.3.1 is addressed in sections 5.4, 5.7, 5.9 and 5.10 to 5.13 of the ES Chapter.

EN-1 Policy: Section 5.3

664 This section discusses the generic biodiversity and geological conservation effects associated with energy infrastructure, recognising the need to protect the most important biodiversity and geological conservation interests. Where the development is subject to EIA, the applicant should ensure that the ES clearly sets out any effects on internationally, nationally and locally designated sites of ecological or geological conservation importance, on protected species and on habitats and other species identified as being of principal importance for the conservation of biodiversity (NPS Section 5.3.3). The EIA should illustrate where the project has been able to use opportunities to conserve and enhance biodiversity interests (NPS Section 5.3.4) and should aim to avoid significant harm through the use of mitigation and considering reasonable alternatives. Where significant harm cannot be avoided, then appropriate compensation measures should be provided (NPS Section 5.3.7).

How has this been addressed?

- 665 Effects on internationally, nationally and locally designated sites of ecological conservation importance (where relevant), on protected species and on habitats and other species identified as being of importance for the conservation of biodiversity are assessed in Sections 5.10-5.13.
- 666 NPS Section 5.3 is addressed in sections 5.4, 5.7, 5.9 and 5.10 to 5.13. Geological interest is addressed in Volume 3, Chapter 6 (application ref: 6.3.6). NPS section 5.3.4 is addressed in sections 5.9 and 5.15 of the biodiversity ES Chapter. Volume 1, Chapter 4: Site Selection and Alternatives (application ref: 6.1.4), describes the options and process undertaken to the preferred selection.
- 667 Mitigation measures, including measures embedded in the design, are set out in Section 5.9 of the ES Chapter. Outline proposals for mitigation and compensation, along with proposals for biodiversity enhancement, are included in the OLEMP (application ref: 8.4).

draft NPS EN-1 paragraph 5.4.4

668 Although not finalised, consideration of the draft NPS is considered pertinent with regards biodiversity, and Biodiversity Net Gain (BNG) in particular. The draft NPS EN-1 encourages the applicant to consider how proposals can contribute to Biodiversity Net Gain (BNG) in Para 5.4.4, noting that the scope of potential gains is dependent on the type, scale and location of each project. Paragraph 5.4.17 of the draft NPS adds that:

Proposals should also consider any opportunities to maximise the restoration, creation, and enhancement of wider biodiversity. Consideration should be given to improvements to, and impacts on, habitats and species in, around and beyond developments, for wider ecosystem services and natural capital benefits, beyond those under protection and identified as being of principal importance. This may include considerations and opportunities identified through Local Nature Recovery Strategies, and national goals and targets set through the government's strategy for nature for example.

669 In addition, Paragraph 5.4.19 states that:

Applicants should consider producing and implementing a Biodiversity Management Strategy as part of their development proposals. This could include provision for biodiversity awareness training to employees and contractors so as to avoid unnecessary adverse impacts on biodiversity during the construction and operation stages.

How has this been addressed?

670 Proposals to provide enhancement have been discussed with NRW and DCC via Onshore Ecology Expert Topic Group (ETG) meetings held in November 2021. The proposals, which were agreed in principle with ETG members, are presented within the Outline Landscape and Ecology Mitigation plan (OLEMP) (application ref: 8.4).

671 The OLEMP sets out the in-principle measures which will be implemented to avoid, reduce, mitigate or compensate for potential impacts on landscape and biodiversity resources and measures intended to provide biodiversity enhancements due to the onshore elements of AyM. The OLEMP therefore operates as the Biodiversity Management Strategy referenced by Draft NPS EN-1.

672 The OLEMP sets out the key elements that will be secured in the final Landscape and Ecology Mitigation Plan (LEMP) which will be agreed with Denbighshire County Council (DCC), in consultation with Natural Resources Wales (NRW) prior to any construction works commencing.

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6.21.2 National Policy Statements: NPS EN-3

674 No relevant policy requirements for onshore biodiversity and nature conservation have been identified in EN-3.

6.21.3 Other Policy Considerations

Future Wales: The National Plan 2040

675 Policy 9 – Resilient Ecological Networks and Green Infrastructure states that to ensure the enhancement of biodiversity, the resilience of ecosystems and the provision of green infrastructure, the Welsh Government will work with key partners to:

- *identify areas which should be safeguarded and created as ecological networks for their importance for adaptation to climate change, for habitat protection, restoration or creation, to protect species, or which provide key ecosystems services, to ensure they are not unduly compromised by future development; and*
- *identify opportunities where existing and potential green infrastructure could be maximised as part of placemaking, requiring the use of nature-based solutions as a key mechanism for securing sustainable growth, ecological connectivity, social equality and well-being.*

Planning authorities should include these areas and/or opportunities in their development plan strategies and policies in order to promote and safeguard the functions and opportunities they provide. In all cases, action towards securing the maintenance and enhancement of biodiversity (to provide a net benefit), the resilience of ecosystems and green infrastructure assets must be demonstrated as part of development proposals through innovative, nature-based approaches to site planning and the design of the built environment.

How has this been addressed?

- 676 Designated sites, protected species, and habitats and other species identified as being of importance for the conservation of biodiversity, are identified in Section 5.7. Effects upon important ecological features are assessed in Sections 5.10-5.13.
- 677 Embedded mitigation measures are set out in Section 5.9. Outline proposals for mitigation and compensation, along with proposals for biodiversity enhancement, are included in the OLEMP (application ref: 8.4). These include woodland planting proposals that seek to address the requirement to promote the resilience of ecosystems.
- 678 Policy 17 - Renewable and Low Carbon Energy and Associated Infrastructure states that *proposals should describe the net benefits the scheme will bring in terms of social, economic, environmental and cultural improvements to local communities.*

How has this been addressed?

- 679 Outline proposals for mitigation and compensation, along with proposals for biodiversity enhancement are included in the OLEMP (application ref: 8.4).

Planning Policy Wales 11

- 680 Section 6.4.3 states that Development plan strategies, policies and development proposals must consider the need to:
- *support the conservation of biodiversity, in particular the conservation of wildlife and habitats;*
 - *ensure action in Wales contributes to meeting international responsibilities and obligations for biodiversity and habitats;*
 - *ensure statutorily and non-statutorily designated sites are properly protected and managed;*
 - *safeguard protected and priority species and existing biodiversity assets from impacts which directly affect their nature conservation interests and compromise the resilience of ecological networks and the components which underpin them, such as water and soil, including peat; and*

- *secure enhancement of and improvements to ecosystem resilience by improving diversity, condition, extent and connectivity of ecological networks.*

How is this addressed?

681 Designated sites, protected species, and habitats and other species identified as being of importance for the conservation of biodiversity, are identified in Section 5.7 (international designated sites have been avoided onshore, see RIAA application ref: 5.2 for further information). Effects upon important ecological features are assessed in Sections 5.10-5.13 of the ES Chapter. Outline proposals for biodiversity enhancement are included in the OLEMP.

682 Section 6.4.5 of PPW 11 states that:

planning authorities must seek to maintain and enhance biodiversity in the exercise of their functions. This means development should not cause any significant loss of habitats or populations of species, locally or nationally and must provide a net benefit for biodiversity. In doing so planning authorities must also take account of and promote the resilience of ecosystems, in particular the following aspects:

- *diversity between and within ecosystems;*
- *the connections between and within ecosystems;*
- *the scale of ecosystems;*
- *the condition of ecosystems including their structure and functioning;*
and
- *the adaptability of ecosystems.*

How has this been addressed?

683 Effects upon important ecological features are assessed in Sections 5.10-5.13. Outline proposals for biodiversity enhancement are included in the OLEMP.

684 Section 6.4.6 of PPW 11 states that in fulfilling this duty, planning authorities must have regard to:

- *the list of habitats and species of principal importance for Wales, published under S7 of the Environment (Wales) Act 2016;*

- *the State of Natural Resources Report (SoNaRR), published by NRW; and*
- *any Area Statement that covers all or part of the area in which the authority exercises its functions.*

How has this been addressed?

685 Important ecological features are identified in Section 5.7 of the ES Chapter, with reference to the relevant documents referred to here.

Well-being of Future Generations Act

686 Requires development to be sustainable. Part 2 Section 4 Table 1 includes the goal:

A resilient Wales: 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.

How is this addressed?

687 The relevant provisions of the Well-being of Future Generations Act are addressed in Sections 5.9 -5.13 of the ES Chapter.

Section 6.4.21 of PPW 11 states that:

planning authorities must follow a stepwise approach to maintain and enhance biodiversity and build resilient ecological networks by ensuring that any adverse environmental effects are firstly avoided, then minimized, mitigated, and as a last resort compensated for; enhancement must be secured wherever possible.

How has this been addressed?

688 Embedded mitigation measures are set out in Section 5.9. Outline proposals for mitigation and compensation, along with proposals for biodiversity enhancement are included in the OLEMP.

Denbighshire Local Development Plan (2006-2018)

689 Policy VOE 1 – Key Areas of importance: states that

the following areas will be protected from development that would adversely affect them. Development proposals should maintain and, wherever possible, enhance these areas for their characteristics, local distinctiveness, and value to local communities in Denbighshire:

- *Statutory designated sites for nature conservation; and*
- *Local areas designated or identified because of their natural landscape or biodiversity value.*

How has this been addressed?

690 Effects on statutory designated sites have been scoped out of the assessment due to intervening distance and lack of pathways by which qualifying features could be affected (see Table 4 of the ES).

691 Effects on locally designated sites are assessed in Sections 5.10-5.13.

692 Policy VOE 5 – Conservation of natural resources states that *development proposals that may have an impact on protected species or designated sites of nature conservation will be required to be supported by a biodiversity statement which must have regard to the County biodiversity aspiration for conservation, enhancement and restoration of habitats and species... Planning permission will not be granted for development proposals that are likely to cause significant harm to the qualifying features of internationally and nationally designated sites of nature conservation, priority habitats, priority species, regionally important geodiversity sites, or to species that are under threat.*

How has this been addressed?

693 Designated sites, protected species, and habitats and other species identified as being of importance for the conservation of biodiversity, are identified in Section 5.7. Effects upon important ecological features are assessed in Sections 5.10-5.13.

694 Embedded mitigation measures are set out in Section 5.9. Outline proposals for mitigation and compensation, along with proposals for biodiversity enhancement are included in the OLEMP.

The Conservation of Habitats and Species Regulations 2017

- 695 Under the Regulations a competent authority, before deciding to give consent for a plan or project which is likely to have a significant effect on a European site (either alone or in combination with other plans or projects) and is not directly connected with or necessary to the management of that site, must make an appropriate assessment of the implications of the plan or project for that site in view of that site's conservation objectives. A person applying for any such consent, must provide such information as the competent authority may reasonably require for the purposes of the assessment or to enable it to determine whether an appropriate assessment is required.

How has this been addressed?

- 696 The relevant provisions of the Habitats Regulations are addressed in section 5.4, section 5.7, section 5.9 and sections 5.10-5.13. The site selection process, as detailed in Volume 1, Chapter 4 Site Selection and Alternatives, has enabled the AyM project to avoid any interaction with onshore European sites (and avoid direct interaction with offshore European sites).

Wildlife and Countryside Act 1981 (as amended)

- 697 The WCA (1981) makes it an offence (subject to exceptions) to intentionally kill, injure or take any wild animal listed on Schedule 5 and prohibits intentional or reckless interference with places used for shelter or protection, or intentionally or recklessly disturbing animals occupying such places.

How has this been addressed?

- 698 The relevant provisions of the Wildlife & Countryside Act are addressed in section 5.4, section 5.7, section 5.9 and sections 5.10-5.13.

6.21.4 Considerations for the Secretary of State

- 699 Part 5.7 of EN-1 set out matters relevant to Ecology and Nature Conservation at national level. It is recognised that 'Biodiversity is the variety of life in all its forms and encompasses all species of plants and animals and the complex ecosystems of which they are a part'. It is recognised in EN-1 that producing the energy required by the UK, significant infrastructure will be required, including large scale projects.
- 700 Part 4 of EN-1 sets out a series of general principles that will be taken in account when reaching a decision. Paragraph 4.1.3 requires that the following matters relevant to Ecology and Nature Conservation are taken into account when considering any proposed development:
- its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits [such as ecological enhancement and management]; and
 - its potential adverse impacts, including long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.
- 701 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to “*environmental, social and economic benefits and adverse impacts, at national, regional and local levels*”.
- 702 Paragraphs 5.3.5 to 5.3.8 set out matters the Secretary of State should have regard to in determining an application for development consent. This includes, *inter alia*, the following:
- *The Government's biodiversity strategy is to ensure a halting, and if possible a reversal, of declines in priority habitats and species, with wild species and habitats as part of healthy, functioning ecosystems; and*
 - *The general acceptance of biodiversity's essential role in enhancing the quality of life, with its conservation becoming a natural consideration in all relevant public, private and non-governmental decisions and policies.*
- 703 The Government must also take into account the challenge and urgency of climate change: failure to address this challenge will result in significant adverse impacts to biodiversity (EN-1 paragraph 5.3.6).

- 704 The assessment of Ecology and Nature Conservation has had regard to the relevant requirements for assessment set out in EN-1 and been carried out in accordance with those requirements. Table 20 of Volume 3, Chapter 5: Onshore Biodiversity (application ref: 6.3.5) provides a summary of the potential effects during the construction, O&M and decommissioning phases of AyM, with embedded mitigation summarised in Section 5.9 *et seq.*
- 705 In the absence of mitigation, a significant effect is possible on some ecological receptors. The construction of the proposed AyM project could result in some temporary significant effects during construction, in advance of the proposed mitigation measures being sufficiently mature. Residual effects following the implementation of the proposed mitigation measures, if required, would not be significant.
- 706 As a result of disturbance to some habitats during the construction period, and loss of some habitats as a result of the construction of the onshore substation, potentially significant effects are offset with compensatory habitats; this includes compensatory planting of new hedgerow. The proposed replacement and enhanced habitat for great crested newt is anticipated to help toward restoring the favourable conservation status in the medium term. Residual effects from permanent loss of habitat as a result of the onshore substation will be offset via compensatory measures including habitat enhancement described in the OLEMP.
- 707 Following the implementation of the agreed mitigation measures, compensatory measures, and enhancement measures no significant effects are anticipated in relation to any onshore biodiversity receptors during either the construction, O&M or decommissioning phases. No significant cumulative effects are predicted with other developments.
- 708 The mitigation measures for onshore biodiversity are presented in Table 12 of the ES Chapter including the consideration of cable routing, reinstatement and restoration of habitats and the use of a qualified Ecological Clerk of Works.

- 709 The construction, O&M, and decommissioning of AyM will be in accordance with the relevant NPSs and other identified material planning policy matters.
- 710 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regards the EIA Regulations and therefore effects on onshore biodiversity should not weigh against the substantial benefits of AyM when considering the planning balance.

6.22 Ground Conditions and Land Use

- 711 This topic is assessed in Volume 3, Chapter 6 (Ground Conditions and Land Use) of the ES (application ref: 6.3.6).

6.22.1 National Policy Statements: NPS EN-1

EN-1 Policy: Paragraph 5.3.3

- 712 Proposals should *clearly set out any effects on internationally, nationally and locally designated sites of ... geological conservation importance.*

How has this been addressed?

- 713 The effects of onshore infrastructure associated with AyM on designated sites of geological conservation importance are considered in Section 6.4.3 of the ES Chapter.

EN-1 Policy: Paragraph 5.3.7

- 714 Proposals should *avoid significant harm to ... geological conservation interests including through mitigation and consideration of reasonable alternatives ...; where significant harm cannot be avoided, then appropriate compensation measures should be sought.*

How has this been addressed?

- 715 The effects of onshore infrastructure associated with AyM on designated sites of geological conservation importance are considered in Section 6.4.3 of the ES Chapter.

EN-1 Policy: Paragraph 5.10.8

- 716 Proposals should seek to minimise impacts on the Best and Most Versatile Agricultural Land and to minimise impacts on soil quality taking into account any mitigation measures proposed. For developments on previously developed land, applicants should ensure that they have considered the risk posed by land contamination.

How has this been addressed?

- 717 The effects of onshore infrastructure associated with AyM on agricultural land and soil quality are considered in Section 6.10, Section 6.11 and Section 6.12 of the ES Chapter.

EN-1 Policy: Paragraph 5.10.8

For developments on previously developed land, applicants should ensure that they have considered the risk posed by land contamination.

How has this been addressed?

- 718 Routing and siting considerations that are discussed in Volume 1, Chapter 4 Site Selection and Alternatives (application ref: 6.1.4). Although the onshore infrastructure does not utilize previously developed land, an assessment of the potential for impacts to occur from contamination is provided in Section 6.10, Section 6.11, and Section 6.7.7 of the ES Chapter.

6.22.2 National Policy Statements: NPS EN-3

- 719 No relevant policy requirements for ground conditions, flood risk and land use have been identified in EN-3.

6.22.3 Other Policy Considerations

Planning Policy Wales 11

Previously developed (also referred to as brownfield) land should, wherever possible, be used in preference to greenfield sites where it is suitable for development.

How has this been addressed?

- 720 A detailed routing and siting appraisal was undertaken in order to determine the location of onshore infrastructure for AyM (see Volume 1, Chapter 4 (application ref: 6.1.4)). This routing sought to minimise interaction with above ground infrastructure and greenfield sites where practicable. The cable being predominantly undergrounded has achieved this, however it was not possible to identify a suitable brownfield site with adequate space and access for the substation (see application ref: 6.1.4 for further information on the process and consultation undertaken to identify a suitable substation location).

PPW 11: paragraph 3.59

Land in grades 1, 2 and 3a should only be developed if there is an overriding need for the development, and either previously developed land or land in lower agricultural grades is unavailable, or available lower grade land has an environmental value recognised by a landscape, wildlife, historic or archaeological designation which outweighs the agricultural considerations.

How has this been addressed?

- 721 A detailed routing and siting appraisal was undertaken in order to determine the location of onshore infrastructure for AyM (see Volume 1, Chapter 4 (application ref: 6.1.4)). This routing avoided high quality agricultural land where possible, with the majority of the route on Grade 3b (moderate soils). Further detail is provided in Section 6.7.3 Soils. An assessment of the effects on soils is presented in Section 6.10, Section 6.11 and Section 6.12 of the ES Chapter.

PPW 11: Paragraph 5.14.7

It is important that access to mineral resources, including secondary, recycled and marine dredged materials, which society may need, as well as the minerals related infrastructure to deliver this need, is safeguarded in order to prevent sterilisation by other forms of permanent development.

How has this been addressed?

- 722 Details of mineral resources are presented in Section 6.7.11. An assessment of the effects on mineral safeguarding areas is presented in Section 6.10 and Section 6.11 of the ES Chapter.

PPW 11: Paragraph 6.9.18

Planning authorities should consider the nature, scale and extent of land contamination which may pose risks to health and the environment so as to ensure the site is capable of effective remediation and is suitable for its intended use.

How has this been addressed?

- 723 An assessment of the potential for impacts to occur from contamination is provided in Section 6.10, Section 6.11 and Section 6.12 of the ES Chapter.

PPW 11: Paragraph 6.9.23

- 724 When considering development proposals, planning authorities should consider the nature, scale and extent of ground instability which may pose direct risks to life and health, buildings and structures, or present indirect hazards associated with ground movement, including mine entry collapse, which provide potential pathways for the migration to the surface of landfill or mine gases.

How has this been addressed?

- 725 Consideration of potential effects on stability from mining is provided in Section 6.7.10 of the ES Chapter.

Denbighshire County Council Local Policy

Policy BSC 2 - Brownfield development priority, states that Development proposals in Lower Growth Towns, Llangollen, Rhuddlan and villages with development boundaries as defined in the inset maps will be directed towards previously developed land, except where greenfield land is allocated for development in the Plan.

How has this been addressed?

- 726 The onshore infrastructure for AyM does not utilise brownfield land with the onshore ECC routed predominantly within agricultural (greenfield) land, however, the majority of below ground infrastructure does not preclude land remaining 'greenfield'.

6.22.4 Considerations for the Secretary of State

- 727 Part 5 of EN-1 sets out matters relevant to biodiversity and geological conservation effects at a national level. It is recognised that *"geological conservation relates to the sites that are designated for their geology and/or their geomorphological importance"*. Part 5.7 of EN-1 sets out matters relevant to hydrology and flood risk. It is recognised that *"flooding is a natural process that plays an important role in shaping the natural environment. Although flooding cannot be wholly prevented, its adverse impacts can be avoided or reduced through good planning and management"*. It is accepted in EN-1 that producing the energy required by the UK, significant infrastructure will be required, including large-scale projects.
- 728 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.13 requires that the following matters are taken into account regarding geology and ground conditions:
- "its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits; and*
- Its potential adverse impacts, including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts"*.
- 729 Paragraphs 5.3.5 to 5.3.8 set out matters the Secretary of State should have regard to in reaching a decision, including proposed mitigation, specifically in respect of geology matters. It is confirmed that the development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives.

- 730 In taking decisions, the Secretary of State should ensure appropriate weight is attached to designated sites of international, national and local importance. These are identified and considered in Volume 3, Chapter 6: Ground Conditions and Land Use (application ref: 6.3.6).
- 731 The assessment of impacts to Ground Conditions and Land Use had regard to the relevant requirements for assessment set out in EN-1, EN-3 and EN-5, and has been carried out in accordance with those requirements
- 732 Paragraphs 5.10.13 to 5.10.18 of EN-1 set out a series of principles that will be taken into account when reaching a decision regarding land use. EN-1 (5.10.13) requires that where a project conflicts with a proposal in a development plan, account should be had to the stage the development plan has reached when considering what weight to give it in the decision-making process. The Applicant has sought to avoid land that was allocated for development (for example the KSS) as part of the site selection process. At the end of each phase, soils would be reinstated across the temporary land take areas and the land reinstated to a standard capable of being returned to its former use.
- 733 The assessment of Ground Conditions and Land Use has therefore had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.
- 734 Table 13 of Volume 3, Chapter 6: Ground Conditions and Land Use (application ref: 6.3.6) provides a summary of the potential effects during the construction, O&M and decommissioning phases of AyM. Table 11 provides a summary of the approach to embedded mitigation.
- 735 The construction, operation and decommissioning of AyM will be carried out in accordance with the relevant NPSs and other identified material planning policy matters.
- 736 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regard to the EIA Regulations and as such effects on ground conditions and land use should not weigh against the substantial benefits of AyM.

6.23 Hydrology, Hydrogeology and Flood Risk

737 This topic is assessed in Volume 3, Chapter 7 (Hydrology, Hydrogeology and Flood Risk) of the ES (application ref: 6.3.7).

6.23.1 National Policy Statements: NPS EN-1

EN-1 Policy: Paragraph 4.8.6

738 Requires that applicants for new energy infrastructure *must take into account the potential impacts of climate change using the latest UK Climate Projections available at the time, in order to ensure that appropriate mitigation or adaptation measures have been identified for the estimated lifetime of the new infrastructure.*

How has this been addressed?

739 The characterisation of the flood risk baseline and future baseline has been established using the NRW Development Advice Map, the Denbighshire Strategic Flood Consequence Assessment and data from recent hydraulic models, which take into account climate change effects. This information is contained in:

- ▲ Flood Consequence Assessment reporting: Volume 53, Annex 7.1: Onshore ECC Flood Consequence Assessment (application ref: 6.5.7.1); and
- ▲ Volume 5, Annex 7.2: Onshore Substation Flood Consequence Assessment (application ref: 6.5.7.2).

740 Flood risk has been considered for the life of the development in Section 7.10, Section 7.11 and Section 7.12 of the ES Chapter.

EN-1 Policy: Paragraph 5.7.4

requires that applications for energy projects of 1 hectare or greater in Zone A and all energy projects located in Zones B and C should be accompanied by a flood risk assessment (FRA). An FRA may also be required where there maybe flooding issues other than from rivers and the sea (for example from surface water), or where the Environment Agency (NRW), Drainage Board or other body have indicated that there may be drainage problems. The FRA should identify and assess the risks of all forms of flooding to and from the

project and demonstrate how these flood risks will be managed, taking climate change into account.

The minimum requirements for what should be included in an FRA are also outlined at paragraph 5.7.5 of NPS EN-1.

How has this been addressed?

741 Flood Consequence Assessment reporting undertaken in consultation with NRW and Denbighshire County Council (DCC):

- ▲ Volume 5, Annex 7.1 (application ref: 6.5.7.1); and
- ▲ Volume 5, Annex 7.2 (application ref: 6.5.7.2).

EN-1 Policy: Paragraph 5.7.7 – 5.7.8

742 *Require applicants to hold pre-application discussions with the Environment Agency [NRW in Wales] and any other relevant bodies. Any concerns in regard to flood risk should be discussed all reasonable steps to agree ways in which the proposal might be amended, or additional information provided, which would alleviate concerns.*

How has this been addressed?

743 Consultation with NRW has been undertaken as part of the AyM Evidence Plan (Hydrology and Flood Risk Expert Topic Group (ETG)) process, as set out in Section 7.3 of the ES Chapter. In addition, Statutory Consultation on the AyM project was undertaken between August and October 2021, with resulting feedback considered within this ES.

EN-1 Policy: Paragraph 5.7.9

744 Sets out the assessment and reporting required to satisfy development consent, including where relevant: an FRA; application of the sequential test as part of the site selection; sequential approach at the site level to minimise risk; the proposal is in line with relevant local flood risk management strategies; priority has been given to the use of sustainable drainage systems (SUDs); and in flood risk areas the proposals are appropriately flood resilient and resistant to flooding.

How has this been addressed?

745 Flood Consequence Assessment reporting has been undertaken in consultation with NRW and DCC:

- ▲ Volume 5, Annex 7.1 (application ref: 6.5.7.1); and
- ▲ Volume 5, Annex 7.2 (application ref: 6.5.7.2).

EN-1 Policy: Paragraph 5.15.2

746 Where the project is likely to have effects on the water environment, the applicant should undertake an assessment of the existing status of, and impacts of the proposed project on, water quality, water resources and physical characteristics of the water environment as part of the ES or equivalent.

How has this been addressed?

747 The baseline environment (Section 7.7) is described for the hydrology, hydrogeology and flood risk study area. An assessment of the impacts on water quality, resources and physical characteristics is provided in Section 7.10, Section 7.11 and Section 7.12.

EN-1 Policy: Paragraph 5.15.3

The ES should in particular describe:

The existing quality of waters affected by the proposed project on water quality, noting any relevant existing discharges, proposed new discharges and proposed changes to discharges;

Existing water resources affected by the proposed project on water resources, noting any relevant existing abstraction rates, proposed new abstraction rates and proposed changes to abstraction rates (including any impact on or use of mains supplies and in reference to Catchment Abstraction Management Strategies;

Existing physical characteristics of the water environment (including quantity and dynamics of flow) affected by the proposed project and any impact of physical modifications to these characteristics; and

Any impacts of the proposed project on water bodies or protected areas under the WFD [Water Framework Directive] and Source Protection Zones (SPZs) around potable groundwater abstractions.

How has this been addressed?

- 748 The baseline characteristics of the water environment (which includes water quality, water resources, and flood risk) has been provided in: Environmental assessment during construction, O&M, and decommissioning phase - sections 7.10 - 7.12; and Embedded mitigation - section 7.9 of the ES Chapter.

EN-1 Policy: Paragraph 5.7.7

- 749 Projects which may be affected by, or may add to, flood risk should arrange pre-application discussions with the EA [Environment Agency], and, where relevant, other bodies such as Internal Drainage Boards [IDBs], sewerage undertakers, navigation authorities, highways authorities and reservoir owners and operators. Such discussions should identify the likelihood and possible extent and nature of the flood risk, help scope the FRA [Flood Risk Assessment], and identify the information that will be required by the [Planning Inspectorate] to reach a decision on the application when it is submitted.

How has this been addressed?

- 750 Discussions with NRW and Lead Local Flood Authorities (LLFAs) have been carried out throughout the environmental assessment process. Details of the consultation are provided in section 7.3 of the ES Chapter.

EN-1 Policy: Paragraph 5.15.6

- 751 The [Secretary of State] should satisfy itself that a proposal has regard to the River Basin Management Plans [RBMPs] and meets the requirements of the Water Framework Directive (including Article 4.7) and its daughter directives, including those on priority substances and groundwater.

How has this been addressed?

- 752 WFD classifications and objectives are taken into account, as the WFD water bodies themselves are receptors outlined in: Existing environment -section 6.7; and Environmental assessment during construction, O&M, and decommissioning phase - sections 6.10 - 6.12. A WFD Assessment is presented in Annex 3.1 of Volume 4 (application ref: 6.4.3.1).

National Policy Statements: NPS EN-3

- 753 No relevant policy requirements for ground conditions, flood risk and land use have been identified in EN-3.

6.23.2 Other Policy Considerations

Planning Policy Wales 11

- 754 The following paragraphs are of relevance, and have been addressed.

Paragraph 6.6.22 states that planning authorities should adopt a precautionary approach of positive avoidance of development in areas of flooding from the sea or from rivers. Surface water flooding will affect choice of location and the layout and design of schemes and these factors

Paragraph 6.6.25 states that development should reduce, and must not increase, flood risk arising from river and/or coastal flooding on and off the development site itself.

Paragraph 6.6.27 states that development should not cause additional run-off, which can be achieved by controlling surface water as near to the source as possible by the use of SuDS.

How has this been addressed?

- 755 The site selection process, as detailed in the Site Selection and Alternatives Chapter, has avoided areas of flooding wherever practicable. Volume 5, Annex 7.1, and Volume 5, Annex 7.2 provide a detailed account of the flood risk associated with the AyM development.

Denbighshire Local Development Plan

- 756 LDP Policies in the current adopted plan that are of relevance to the Chapter are summarised below:

Policy RD 1 – Sustainable development and good standard design: States that development proposals will be supported within development boundaries provided that all the following criteria are met: ...

... vi) Does not unacceptably affect the amenity of local residents, other land and property users or characteristics of the locality by virtue of increased activity, disturbance, noise, dust, fumes, litter, drainage, light pollution etc., and provides satisfactory amenity standards itself; and

... xi) Satisfies physical or natural environmental considerations relating to land stability, drainage and liability to flooding, water supply and water abstraction from natural watercourse

Policy VOE 6 – Water Management: States that all development will be required to eliminate or reduce surface water runoff from the site, where practicable. The runoff rates from the site should maintain or reduce pre-development rates.

How has this been addressed?

- 757 The onshore substation design includes a surface water drainage scheme which would manage rainfall runoff from the proposed substation and will not increase flood risk locally or in the wider area. This approach is outlined in the supporting onshore substation FCA, Volume 5, Annex 7.2 (application ref: 6.5.7.2)

6.23.3 Considerations for the Secretary of State

- 758 Part 5 of EN-1 sets out matters relevant to biodiversity and geological conservation effects at a national level. It is recognised that "geological conservation relates to the sites that are designated for their geology and/or their geomorphological importance". Part 5.7 of EN-1 sets out matters relevant to hydrology and flood risk. It is recognised that "flooding is a natural process that plays an important role in shaping the natural environment. Although flooding cannot be wholly prevented, its adverse impacts can be avoided or reduced through good planning and management". It is accepted in EN-1 that producing the energy required by the UK, significant infrastructure will be required, including large-scale projects.
- 759 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.13 requires that the following matters are taken into account regarding geology and ground conditions:
- "its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits; and*
- Its potential adverse impacts, including any long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts".*
- 760 Paragraphs 5.3.5 to 5.3.8 set out matters the Secretary of State should have regard to in reaching a decision, including proposed mitigation, specifically in respect of geology matters. It is confirmed that the development should aim to avoid significant harm to biodiversity and geological conservation interests, including through mitigation and consideration of reasonable alternatives.
- 761 In taking decisions, the Secretary of State should ensure appropriate weight is attached to designated sites of international, national and local importance. These are identified and considered in Volume 3, Chapter 7: Hydrology, Hydrogeology, and Flood Risk (application ref: 6.3.7).

762 Paragraphs 5.7.9 to 5.7.12 set out matters the Secretary of State should have regard to in determining an application for development consent regarding hydrology and flood risk. These include:

"Application supported by an appropriate FRA;

The Sequential Test has been applied as part of site selection;

A sequential approach has been applied at the site level to minimise risk by detecting the most vulnerable uses to areas of lowest flood risk;

The proposal is in line with any relevant national and local flood risk management strategy;

Priority has been given to the use of sustainable drainage systems (SUDS); and

In flood risk areas the project is appropriately flood resilient and resistant, including safe access and escape routes where required, and that any residual risk can be safely managed over the lifetime of the development".

763 The assessment of impacts to Hydrology, Hydrogeology, and Flood Risk has had regard to the relevant requirements for assessment set out in EN-1, EN-3 and EN-5, and has been carried out in accordance with those requirements, including a Flood Risk Assessment

764 The assessment of Hydrology, Hydrogeology, and Flood Risk has therefore had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.

765 Table 10 of the ES Chapter provides a summary of the potential effects during the construction, O&M and decommissioning phases of AyM. Table 9 provides a summary of the approach to embedded mitigation.

766 The construction, operation and decommissioning of AyM will be carried out in accordance with the relevant NPSs and other identified material planning policy matters.

767 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regard to the EIA regulations and as such effects on Hydrology, Hydrogeology and Flood Risk should not weigh against the substantial benefits of the AyM.

6.24 Onshore Archaeology and Cultural Heritage

768 This topic is assessed in Volume 3, Chapter 8 (Onshore archaeology and Cultural Heritage) of the ES (application ref: 6.3.8).

6.24.1 National Policy Statements: NPS EN-1

EN-1: paragraph 5.8.4

769 The NPS discusses the generic impacts on the historic environment associated with the construction, O&M and decommissioning of energy infrastructure. The NPS sets out the need to consider the impacts on both designated and non-designated heritage assets.

How has this been addressed?

770 Effects on designated and non-designated heritage assets have been considered at sections 8.10 to 8.13.

EN-1: paragraph 5.8.5

Where non-designated heritage assets are of equivalent significance to designated heritage assets, they are subject to the policy considerations that apply to designated heritage assets.

How has this been addressed?

771 Non-designated heritage assets of equivalent significance to designated heritage assets are identified and assessed as appropriate in sections 8.10 to 8.13.

EN-1: paragraph 5.8.6

Non-designated heritage assets of lesser significance should be considered within any decision making.

How has this been addressed?

772 Effects on non-designated heritage assets have been considered at sections 8.10 to 8.13 as appropriate.

EN-1: paragraph 5.8.9

A field survey may be required to inform any assessment of significance.

How has this been addressed?

- 773 Initial walkovers and receptor visits have been undertaken to inform the assessment.

EN-1: paragraph 5.8.10

Any application should contain sufficient information to allow heritage significance to be understood.

How has this been addressed?

- 774 Statements of significance of heritage assets are set out in sections 8.10 and 8.13 in sufficient detail to allow heritage significance to be understood.

EN-1: paragraph 5.8.12

The nature of the significance of the heritage assets and the value that they hold for this and future generations should be taken into account in considering the impact of a proposed development on any heritage assets.

How has this been addressed?

- 775 The assessment presented in sections 8.10 and 8.13 has regard to the significance of heritage assets. Particularly, the assessment identifies and assesses the significance of the heritage assets themselves.

EN-1: paragraph 5.8.14

Development which would give rise to substantial harm to designated heritage assets should be exceptional, or for heritage assets of the highest significance (Grade I and II listed buildings, scheduled monuments, designated battlefields, World Heritage Sites and grade I and II* designated registered parks and gardens), should be wholly exceptional. Harm to designated heritage assets of less than substantial magnitude should be weighed against the benefits of the proposal.*

How has this been addressed?

- 776 No cases have been identified where substantial harm to the heritage significance of a designated heritage asset would arise. Where less than substantial harm to the heritage significance of a heritage asset has been identified, this is considered here in the Planning Statement.

EN-1: paragraph 5.8.15

Development giving rise to substantial harm to a designated heritage asset should only be permitted where necessary to deliver significant public benefits which outweigh the harm occasioned.

How has this been addressed?

- 777 No cases have been identified where substantial harm to the heritage significance of a designated heritage asset would arise.

EN-1: paragraph 5.8.16

Not all elements of a conservation area or World Heritage Site necessarily contribute positively to significance and the contribution of parts of such designations which may be affected should be considered.

How has this been addressed?

- 778 The contribution of different elements of area designations has been considered within the assessment set out at section 8.11.3, with regard to the “Castles and Town Walls of King Edward in Gwynedd” World Heritage Site.

EN-1: paragraphs 5.8.19 – 5.8.22

Provisions for the recording of at-risk heritage assets to mitigate against loss of evidential interest are set out.

How has this been addressed?

- 779 Mitigation measures including preservation by record have regard to the provisions of NPS EN-1.

6.24.2 National Policy Statements: NPS EN-3

780 NPS EN-3 contains no specific policy on onshore historic environment remains, referring back to the generic policies in NPS EN-1 Section 5.8, and specifically refers back to NPS EN-1 for the consideration of elements of the marine historic environment which are located onshore (NPS EN-3 2.6.143). The approach taken and assessment presented in the Chapter follows the provisions within NPS EN-1.

6.24.3 National Policy Statements: NPS EN-5

781 Archaeology is considered in NPS EN-5 when weighing up the development of overhead lines and underground cables. The consideration of effects to below ground archaeological remains is balanced against the visual effects of using overhead lines.

How has this been addressed?

782 The approach taken and assessment presented in the Chapter follows the provisions within NPS EN-1.

6.24.4 Other Policy Considerations

Planning Policy Wales (PPW) Edition 11 (2021), Chapter 6 Distinctive and Natural Places

783 The planning system looks to protect, conserve and enhance the significance of historic assets including consideration of setting which may extend beyond its curtilage. Any change that impacts on an historic asset or its setting should be managed in a sensitive and sustainable way (paragraph 6.1.7). PPW does not set out any specific policies for the testing of NSIPs, however Chapter 6 relates to the historic environment and is broadly consistent with the policies of NPS EN-1 and Draft NPS EN-1.

How has this been addressed?

- 784 The approach taken and assessment presented in the Chapter is broadly consistent with PPW, but where the requirements deviate from NPS EN-1, provisions within the NPS have been followed.

Future Wales – The National Plan 2040 (2019, updated February 2021)

Cultural heritage is a key contributor to Wales, not least in terms of the value it brings in attracting tourists and in creating an attractive place to live, work and enjoy. Policies protecting heritage interests are included. With regard to nationally significant renewable energy developments, the effects on statutorily protected built heritage are identified as one of the key criteria in determining whether such development is normally allowed (see criterion 6, policy 18); no unacceptable adverse impacts are allowed. Protection of Heritage generally, and the Castles and Towns of King Edward I in Gwynedd World Heritage Site are specifically named in connection with supporting regional growth strategies in the North of the country in Policy 25. Future Wales acknowledges that offshore infrastructure falls outside its remit, but onshore infrastructure will fall within the planning process it covers.

How has this been addressed?

- 785 The assessment has considered potential effects on the heritage significance of heritage assets, including those of the highest designations (the Castles and Towns of King Edward I in Gwynedd World Heritage Site) in section 8.10 to 8.12 of the ES Chapter.

Denbighshire County Council Local Development Plan 2013- Policy VOE 10 Renewable Energy Technologies

Development proposals must demonstrate no unacceptable impact upon cultural heritage interests. In areas that are visually sensitive (including in relation to the World Heritage Sites) development will not be permitted unless it can be demonstrated that there is no negative impact or that there is an overriding public need for the development.

How has this been addressed?

- 786 Effects upon heritage interests as a result of the proposals are addressed in section 8.10- 8.12.

6.24.5 Considerations for the Secretary of State

787 Part 5.8 of EN-1 set out matters relevant to the Historic Environment at national level. It is recognised that "the construction, operation and decommissioning of energy infrastructure has the potential to result in adverse impacts on the historic environment". It is recognised in EN-1 that producing the energy required by the UK, significant infrastructure will be required, including large-scale projects. Paragraph 5.8.13 of EN-1 also recognises that new development can make a positive contribution to the character and local distinctiveness of the historic environment. Part 4 of EN-1 sets out a series of general principles that will be taken in account when reaching a decision. Paragraph 4.1.3 requires that the following matters relevant to the historic environment are taken in account when considering any proposed development:

"potential adverse impacts, including long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts".

788 Paragraph 4.1.4 of EN-1 states that, in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts, at national, regional and local levels"*.

789 Paragraphs 5.8.11 to 5.8.18 set out matters the Secretary of State should have regard to in reaching a decision, including proposed mitigation, specifically in respect of matters relating to the Historic Environment. It is confirmed that the Secretary of State should seek to identify and assess the particular significance of any heritage asset that may be affected by the proposed development, including by development affecting the setting of a heritage asset taking account, *inter alia*, of:

- *Evidence provided with the application;*
- *Any designation records;*
- *The Historic Environment Record, and similar sources of information;*
- *The heritage assets themselves;*
- *The outcome of consultations with interested parties; and*
- *Where appropriate and when the need to understand the significance of the heritage asset demands it, expert advice.*

- 790 The assessment of the Historic Environment has had regard to the relevant requirements for assessment set out in EN-1, and been carried out in accordance with those requirements. Table 14 of Volume 3, Chapter 8: Historic Environment (application ref: 6.3.8) provides a summary of the potential effects during the construction, O&M and decommissioning phases of AyM, with embedded mitigation summarised in Table 11.
- 791 No residual effects considered significant for purposes of the EIA regulations have been identified, notwithstanding some changes in setting arising from the presence of the proposed development. Only one instance of harm to the significance of a heritage asset has been identified – this is an effect on the character and appearance of the Llandudno Pier Conservation Area arising from visibility of the AyM WTGs across a part of that area in such a way as to reduce the contribution made by the setting of the area to its significance. As the impact is confined to the northern extent of that area only, the degree of harm is considered to be “less than substantial”.
- 792 In all other cases, no harm has been found to the significance of any heritage asset, nor to the way in which that significance is appreciated and/ or understood. The character and appearance of Conservation Areas is considered to be preserved, as are the settings of Listed Buildings.
- 793 Paragraph 5.8.14 of EN-1 states that the development which would give rise to substantial harm to designated heritage assets should be exceptional, or for heritage assets of the highest significance (Grade I and II* listed buildings, scheduled monuments, designated battlefields, World Heritage Sites and grade I and II* designated registered parks and gardens), should be wholly exceptional. Harm to designated heritage assets of less than substantial magnitude should be weighed against the benefits of the proposal. Paragraph 5.8.15 of EN-1 states that the development giving rise to substantial harm to a designated heritage asset should only be permitted where necessary to deliver significant public benefits which outweigh the harm.

- 794 The AyM WTGs will be a clear addition to the seascape, albeit not a new feature, given the visibility of the Rhyl Flats turbines in relatively close proximity and the GyM turbines further out to sea to the north-east. However, they will be noticeably different in size and scale. The proposed AyM WTGs will be visible in combination with the pier and in some views, will be visible above the pier, which for some, may detract from the pier forming the focal point at this end of the promenade. This effect will be less noticeable from the southern end of the promenade, but will tend to increase as one approaches to the north, before lessening closer to the access point from the promenade.
- 795 The AyM WTGs will be visible across a part of the Conservation area, in some views, in such a way as to reduce the contribution made by the setting of the area to its significance. As the impact is confined, the degree of harm is considered to be "less than substantial".
- 796 In all other cases, no harm has been found to the significance of any heritage asset, nor to the way in which that significance is appreciated and/ or understood. The character and appearance of Conservation Areas is considered to be preserved, as are the settings of Listed Buildings.
- 797 The construction, operation and decommissioning of AyM will be in accordance with the relevant NPSs and other identified material planning policy matters.
- 798 The environmental information and assessment carried out for AyM concludes that there are no significant effects on onshore historic environment and where harm has been identified it is less than substantial. As such, the effect on onshore historic environment should be given little weight against the substantial benefits of AyM when considering the planning balance.

6.25 Traffic and Transport

- 799 This topic is assessed in Volume 3, Chapter 9 (Traffic and Access) of the ES (application ref: 6.3.9).

6.25.1 National Policy Statements: NPS EN-1

EN-1 paragraph 5.13.3-5

- 800 The NPS discusses generic impacts associated with the transport of materials, goods and personnel to and from a development during all project phases. If a project is likely to have significant transport impacts the applicant will be required to produce a Transport Assessment (TA). The likely impact from substantial Heavy Goods Vehicle (HGV) traffic should be managed through the use of a Construction Traffic Management Plan (CTMP), with provision of adequate parking and arrangements for abnormal disruption. A Travel Plan will also be required in some instances setting out mitigation and management measures.

How has this been addressed?

- 801 Consideration of the construction, O&M and decommissioning phases of the proposed development are set out in sections 9.10, 9.12 and 9.13. Section 9.9 'Mitigation' sets out the embedded and applied mitigation that will be required as part of the proposed development, referencing the requirement for a Construction Code of Practice (CoCP) (Document 8.13), which provides details on how traffic would be managed.

EN-1 paragraph 5.13.8

Demand management measures must be considered where any form of mitigation is required.

How has this been addressed?

- 802 Mitigation measures proposed Chapter will manage routing and timing of HGV and staff movements.

EN-1 paragraph 5.13.11

The [Secretary of State] may attach requirements to a consent where there is likely to be substantial HGV traffic that:

- *Control the number/ routing of HGV movements during specific periods of the construction process; and*

- *Through consultation with network providers and the police force, ensure adequate arrangements are in place for the delivery of any abnormal loads.*

How has this been addressed?

- 803 Routing for HGV movements has been identified, as well as proposed working hours, in order to minimise the impact of the proposed development on the surrounding highway network. Transportation of Abnormal Indivisible Loads (ALLs) will be subject to a separate consenting process, as required.

EN-1 Paragraph 5.13.3:

If a project is likely to have significant transport implications, the applicant's ES should include a transport assessment, using the NATA/WebTAG methodology stipulated in Department for Transport (DfT) guidance, or any successor to such methodology.

How is this addressed?

- 804 The traffic Chapter of the ES and supporting annexes have been produced in accordance with current transport guidance and this is evidenced throughout.

EN-1 Paragraph 5.13.4:

Where appropriate, the applicant should prepare a travel plan including demand management measures to mitigate transport impacts. The applicant should also provide details of proposed measures to improve access by public transport, walking and cycling, to reduce the need for parking associated with the proposal and to mitigate transport impacts.

How is this addressed?

- 805 Section 9.9 of the ES Chapter outlines the embedded traffic and transport mitigation measures for the construction phase of AyM, such as the Outline Traffic Plan (Appendix 9 of the Outline CoCP (application ref: 8.13.9)). The OTP will include demand management measures to be adopted.

6.25.2 National Policy Statements: NPS EN-3

EN-3 paragraph 2.6.4

The extent to which generic impacts set out in EN-1 are relevant may depend upon the phase of the proposed development being considered. For example, land-based traffic and transport and noise issues may be relevant during the construction and decommissioning periods only, depending upon the specific proposal.

How has this been addressed?

- 806 The Chapter does not include an assessment of the traffic impacts associated with O&M or the decommissioning phase of AyM as set out in Section 9.4.3 and 9.4.4.

EN-3 paragraph 2.7.77

Where a cumulative impact is likely, a cumulative transport assessment should form part of the assessment to consider the impacts of abnormal traffic movements relating to the project in question.

How has this been addressed?

- 807 Section 9.14 discusses the relevant committed developments within the vicinity of the proposed development, as well as assessing their cumulative impact on the proposed development.

6.25.3 Other Policy Considerations

Planning Policy Wales 11

- 808 Section 4.1.56 states:

Planning applications for developments, including changes of use, falling into the categories identified in TAN 18: Transport must be accompanied by a Transport Assessment

- 809 and

They (Transport Assessments) should cover the transport impacts during the construction phase of the development, as well as when built and in use.

How has this been addressed?

- 810 A Transport Assessment is incorporated into the Chapter and Volume 5, Annex 9.1, Volume 5, Annex 9.2 and Volume 5, Annex 9.3 of the ES Chapter. The potential transport impacts during the construction and operation of AyM have been assessed in the Chapter.

Denbighshire County Council Local Development Plan

- 811 Policy RD-1 states:

A transport assessment and travel plan will be required where appropriate

How has this been addressed?

- 812 A Transport Assessment is incorporated into the Chapter and Volume 5, Annex 9.1, Volume 5, Annex 9.2 and Volume 5, Annex 9.3 An Outline Traffic Plan (OTP) is provided in Appendix 9 of the Outline CoCP (application ref: 8.13.9).

6.25.4 Considerations for the Secretary of State

- 813 Part 5.13 of EN-1 sets out matters relevant to Traffic and Access at a national level. It is recognised that "the transport of materials, goods and personnel to and from a development during all project phases can have a variety of impacts on the surrounding transport infrastructure and potentially on connecting transport networks, for example through increased congestion. Impacts may include economic, social and environmental effects. Environmental effects may result particularly from increases in noise and emissions from road transport". It is recognised in EN-1 that producing the energy required by the UK will require significant infrastructure, including large-scale projects.
- 814 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.1.3 requires that the following matters relevant to Traffic and Access are taken into account when considering any proposed development:

its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long-term or wider benefits; and

Its potential adverse impacts, including long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts.

815 Paragraph 1.4.1 of EN-1 states that in reaching a decision, the Secretary of State should have regard to "*environmental, social and economic, social and economic benefits and adverse impacts at national, regional and local levels*".

816 Paragraphs 5.13.6 and 5.13.7 set out matters the Secretary of State should have regard to in determining an application for development consent, including:

A new energy NSIP may give rise to substantial impacts on the surrounding transport infrastructure and the [Secretary of State] should therefore ensure that the applicant has sought to mitigate these impacts, including during the construction phase of the development. Where the proposed mitigation measures are insufficient to reduce the impact on the transport infrastructure to acceptable levels, the [Secretary of State] should consider requirements to mitigate adverse impacts on transport networks arising from the development; and

Should the applicant be willing to enter into planning obligations, or requirements can be imposed to mitigate transport impacts identified in the NATA/WebTAG transport assessment, then development consent should not be withheld and appropriately limited weight should be applied to residual effects on the surrounding transport infrastructure.

817 The greatest number of vehicle movements will be generated in the construction phase, with O&M traffic flows negligible by comparison. Fewer vehicle movements will be required during decommissioning than construction.

818 Table 36 of Volume 3, Chapter 9: Traffic and Access (application ref: 6.3.9) provides a summary of the potential effects during the construction, O&M and decommissioning phases of AyM, as well as additional proposed mitigation measures. Embedded mitigation measures are described in Section 9.9.

819 The assessment of Traffic and Access has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.

- 820 The construction, operation and decommissioning of AyM will be carried out in accordance with the relevant NPSs and other identified material planning policy matters.
- 821 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regard to traffic. Effects from traffic should therefore not weigh against the substantial benefits of AyM.

6.26 Noise and Vibration

- 822 This topic is assessed in Volume 3, Chapter 10 (Noise and Vibration) of the ES (application ref: 6.3.10).

6.26.1 National Policy Statements: NPS EN-1

EN-1: Paragraph 5.11.1

Excessive noise can have wide-ranging impacts on the quality of human life, health (for example owing to annoyance or sleep disturbance) and use and enjoyment of areas of value such as quiet places and areas with high landscape quality. The Government's policy on noise is set out in the Noise Policy Statement for England (NPSE). It promotes good health and good quality of life through effective noise management. Similar considerations apply to vibration, which can also cause damage to buildings.

How has this been addressed?

- 823 Section 10.3 describes how a set of assessment criteria have been developed which has enabled the proposed development to be assessed against the principal aims of the NPSE (and Noise and soundscape action plan, 2018, for Wales) which is referenced here.

EN-1: Paragraph 5.11.6

Operational noise, with respect to human receptors, should be assessed using the principles of the relevant British Standards and other guidance. For the prediction, assessment and management of construction noise, reference should be made to any relevant British Standards and other guidance which also give examples of mitigation strategies. The standards and guidance used to assess the proposed development are set out in this table.

How has this been addressed?

- 824 Section 10.3 of the ES Chapter describes how these standards have been used to assess the impact of noise and vibration.

EN-1: Paragraph 5.11.7

The applicant should consult Environment Agency (EA) and Natural England (NE), or the Countryside Council for Wales (CCW) [NRW], as necessary and in particular with regard to assessment of noise on protected species or other wildlife.

How has this been addressed?

- 825 The results of any noise surveys and predictions may inform the ecological assessment. The seasonality of potentially affected species in nearby sites may also need to be taken into account. The assessment of noise impacts on ecological receptors is provided in Volume 3, Chapter 5: Onshore biodiversity and nature conservation (application ref: 6.3.5).

EN-1: Paragraph 5.11.8

The project should demonstrate good design through selection of the quietest cost-effective plant available; containment of noise within buildings wherever possible; optimisation of plant layout to minimise noise emissions; and, where possible, the use of landscaping, bunds or noise barriers to reduce noise transmission.

How has this been addressed?

- 826 Mitigation for reducing noise and vibration is described in section 10.10. Additional mitigation may be required, subject to the final design, as described in section 10.17 and in the Noise and Vibration Management Plan (application ref: 8.13.2). Flexibility is retained at this stage to ensure that the principles of good design and avoidance of effect will continue to be applied post-consent, with mitigation applied only where avoidance is not possible.

EN-1: Paragraph 5.11.9

The [Secretary of State] should not grant development consent unless it is satisfied that the proposals will meet the following aims:

- *avoid significant adverse impacts on health and quality of life from noise;*
- *mitigate and minimise other adverse impacts on health and quality of life from noise; and*
- *where possible, contribute to improvements to health and quality of life through the effective management and control of noise.*

How has this been addressed?

- 827 Section 10.3 describes how a set of assessment criteria have been developed which has enabled the proposed development to be assessed against the principal aims of the NPSE which are in accordance with the three aims set out in Para 5.11.9 of NPS EN-1.

EN-1: Paragraph 5.11.10

- 828 When preparing the development consent order, the Secretary of State should consider including measurable requirements or specifying the mitigation measures to be put in place to ensure that noise levels do not exceed any limits specified in the development consent.

How has this been addressed?

- 829 Embedded mitigation for reducing noise and vibration is described in Section 10.10. No additional mitigation is required as described in section 10.15. The mitigation measures set out could be specified to ensure that the noise levels do not exceed any limits specified in the development consent order.

6.26.2 National Policy Statements: NPS EN-3

- 830 No relevant policy requirements for noise and vibration have been identified in EN-3

6.26.3 Other Policy Considerations

Planning Policy Wales 11: Paragraph 5.9.20

Planning authorities should also identify and require suitable ways to avoid, mitigate or compensate adverse impacts of renewable and low carbon

energy development. The construction, operation, decommissioning, remediation and aftercare of proposals should take into account:

- the need to minimise impacts on local communities, such as from noise and air pollution, to safeguard quality of life for existing and future generations;
- the impact on the natural and historic environment;
- cumulative impact; and
- the capacity of, and effects on, the transportation network.

How has this been addressed?

- 831 The assessment has considered the impact of construction and operational noise on both human and ecological receptors, as shown in Sections 10.11 to 10.17 of the ES Chapter. The assessment has considered the cumulative noise impact of other proposed developments in the area, as shown in Section 10.15. The assessment has considered the potential noise effects of construction related traffic on the road network, as shown in Section 10.11.11.

DCC Local Development Plan: Policy VOE 10

- 832 Development proposals which promote the provision of renewable energy technologies may be supported providing they are located so as to minimise visual, noise and amenity impacts and demonstrate no unacceptable impact upon the interests of nature conservation, wildlife, natural and cultural heritage, landscape, public health and residential amenity.

How has this been addressed?

- 833 The construction and operational noise assessments have considered the impacts on both human and ecological receptors, as shown in Sections 10.11 and 10.12.

6.26.4 Considerations for the Secretary of State

834 Part 5.11 of EN-1 sets out matters relevant to Noise and Vibration at a national level. It is recognised that 'excessive noise can have wide-ranging impacts on the quality of human life, health and use and enjoyment of areas of value such as quiet places and areas with high landscape quality'. It is recognised in EN-1 that producing the energy required by the UK requires significant infrastructure, including large-scale projects.

835 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.1.3 requires that the following matters relevant to Noise and Vibration are taken into account when considering any proposed development:

"Potential adverse impacts, including long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts".

836 Paragraph 4.1.4 of EN-1 states that in reaching a decision, the Secretary of State should have regard to *"environmental, social and economic benefits and adverse impacts at national, regional and local levels"*.

837 NPS EN-3 paragraphs 5.11.8 to 5.11.10 set out matters the Secretary of State should have regard to in reaching a decision, including proposed mitigation, specifically in respect of Noise and Vibration matters. It is confirmed that the Secretary of State should not grant development consent unless it is satisfied that the proposals will avoid significant adverse impacts on health and quality of life from noise; mitigate and minimise other adverse impacts on health and quality of life from noise; and where possible, contribute to improvements to health and quality of life through the effective management and control of noise.

838 Table 75 of Volume 3, Chapter 10: Noise and Vibration (application ref: 6.3.10) provides a summary of the potential effects during the construction, O&M and decommissioning phases of AyM, as well as additional proposed mitigation measures. Embedded mitigation measures are described in Table 45.

- 839 The assessment of Noise and Vibration has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.
- 840 The construction, operation and decommissioning of AyM will be carried out in accordance with the relevant NPSs and other identified material planning policy matters.
- 841 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regard to the noise and vibration and therefore these effects should not weigh against the substantial benefits of AyM when considering the planning balance.

6.27 Air Quality

- 842 This topic is assessed in Volume 3, Chapter 9 (Air Quality) of the ES (application ref: 6.3.11).

6.27.1 National Policy Statements: NPS EN-1

EN-1 paragraph 5.2.7

The Environmental Statement should describe:

- The Environmental Statement (ES) should describe any significant air emissions, their mitigation and any residual effects distinguishing between the project stages and taking account of any significant emissions from any road traffic generated by the project.*
- ES should describe the predicted absolute emission levels of the proposed project, after mitigation methods have been applied.*
- The ES should describe existing air quality levels and the relative change in air quality from existing levels.*

How has this been addressed?

- 843 This assessment of any significant air emissions is set out in section 11.10 et seq of the Chapter.
- 844 The Chapter assesses the risk and significance of potentially significant emissions to air, with and without appropriate mitigation.

845 Existing air quality is described in the section 11.7 of the Chapter and the relative change is described in sections 11.10 – 11.12.

6.27.2 National Policy Statements: NPS EN-3

846 No relevant policy requirements for air quality have been identified in EN-3.

6.27.3 Other Policy Considerations

Planning Policy Wales 11

847 PPW places a requirement for new developments to consider potential air quality effects, and:

- *Address any implication arising as a result of its association with, or location within, AQMAs, or areas where there are sensitive receptors;*
- *Not create areas of poor air quality; and*
- *Seek to incorporate measures which reduce overall exposure to air and noise pollution.*

How has this been addressed?

848 The PPW 11 requirements have been followed, and/ or assessed in the ES Chapter. Furthermore, PPW states that where possible, the proposed development should be designed to prevent adverse effects to amenity, health and the environment but as a minimum to limit or constrain any effects that do occur. Where required, mitigation measures proportionate to the air quality effects identified will be proposed and secured to ensure compliance with PPW. This includes preparation of an outline Air Quality Management Plan (AQMP) as part of an outline Code of Construction Practice (CoCP) in response to potential construction-led effects. The outline AQMP sets out the key elements that will be secured in the detailed AQMP which the Applicant will be required to submit to Denbighshire County Council (DCC) the relevant planning authority for approval as a requirement of the DCO. The outline AQMP is provided as Appendix 3 to the outline CoCP in Volume 8, Document 3 (application ref: 8.13.3).

6.27.4 Considerations for the Secretary of State

- 849 Part 5.2 of EN-1 sets out matters relevant to Air Quality at a national level. It is recognised that in order to produce the energy required by the UK, significant infrastructure will be required, including large scale projects.
- 850 Part 4 of EN-1 sets out a series of general principles that will be taken into account when reaching a decision. Paragraph 4.1.3 requires that the following matters relevant to Air Quality are taken into account when considering any proposed development: *"Potential adverse impacts, including long-term and cumulative adverse impacts, as well as any measures to avoid, reduce or compensate for any adverse impacts"*.
- 851 Paragraph 4.1.4 of EN-1 states that in reaching a decision, the Secretary of State should have regard to 'environmental, social and economic benefits and adverse impacts at national, regional and local levels'. NPS EN-3 paragraphs 5.2.8 to 5.2.10 set out matters the Secretary of State should have regard to in reaching a decision, including proposed mitigation, specifically in respect of Air Quality matters. It is confirmed that the Secretary of State must have regard to the following:
- *"Give Air Quality considerations substantial weight where a project would lead to a deterioration in Air Quality in an area, or leads to a new area where air quality breaches any national air quality limits;*
 - *Potential Air Quality effects; and*
 - *In the event that a project will lead to non-compliance with a statutory limit the [Secretary of State] should refuse consent"*.
- 852 Table 15 of Volume 3, Chapter 11: Air Quality (application ref: 6.3.11) provides a summary of the potential effects during the construction, O&M and decommissioning phases of AyM, as well as additional proposed mitigation measures. Embedded mitigation measures are described in Table 10. The project will not lead to non-compliance with a statutory limit.
- 853 The assessment of Air Quality has had regard to the relevant requirements for assessment set out in EN-1 and EN-3 and has been carried out in accordance with those requirements.

- 854 The construction, operation and decommissioning of AyM will be carried out in accordance with the relevant NPSs and other identified material planning policy matters.
- 855 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regard to air quality impacts. The project will not lead to non-compliance with a statutory limit. Accordingly, effects on air quality should not weigh against the substantial benefits of AyM.

6.28 Public Health

- 856 This topic is assessed in Volume 3, Chapter 12 (Public Health) of the ES (application ref: 6.3.12).

6.28.1 National Policy Statements: NPS EN-1

Energy production has the potential to impact on the health and well-being ("health") of the population. Access to energy is clearly beneficial to society and to our health as a whole. However, the production, distribution and use of energy may have negative impacts on some people's health. As described in the relevant sections of this NPS and in the technology specific NPSs, where the proposed project has an effect on human beings, the ES should assess these effects for each element of the project, identifying any adverse health impacts, and identifying measures to avoid, reduce or compensate for these impacts as appropriate. The impacts of more than one development may affect people simultaneously, so the applicant and the IPC should consider the cumulative impact on health. The direct impacts on health may include increased traffic, air or water pollution, dust, odour, hazardous waste and substances, noise, exposure to radiation, and increases in pests. New energy infrastructure may also affect the composition, size and proximity of the local population, and in doing so have indirect health impacts, for example if it in some way affects access to key public services, transport or the use of open space for recreation and physical activity.

How has this been addressed?

- 857 Impacts to health are assessed in sections 12.10, 12.11, 12.12 and 12.13. Direct impacts to health are outlined in Table 9.

6.28.2 National Policy Statements: NPS EN-3

858 No relevant policy requirements for public health have been identified in EN-3.

6.28.3 NPS EN-5 Para 2.10.2

All overhead power lines produce EMFs, and these tend to be highest directly under a line, and decrease to the sides at increasing distance. Although putting cables underground eliminates the electric field, they still produce magnetic fields, which are highest directly above the cable (see para 2.10.12). EMFs can have both direct and indirect effects on human health. The direct effects occur in terms of impacts on the central nervous system resulting in its normal functioning being affected. Indirect effects occur through electric charges building up on the surface of the body producing a microshock on contact with a grounded object, or vice versa, which, depending on the field strength and other exposure factors, can range from barely perceptible to being an annoyance or even painful.

How is this addressed?

859 The potential effects of EMF are described in section 12.10.

6.28.4 Other Policy Considerations

Wellbeing of Future Generations (Wales) Act 2015

860 The Act provides for a shared purpose through seven well-being goals for Wales. These well-being goals are indivisible from each other and explain what is meant by the well-being of Wales.

861 One of the well-being goals represents the ambition for 'A Healthier Wales'.

How is this addressed?

862 Impacts to health are considered throughout the ES Chapter and assessed in sections 12.9, 12.10, 12.11 and 12.12.

Planning Policy Wales 11

Para 324 states that *'Where significant effects on human health are likely to arise as a result of development plans or individual development proposals, environmental impacts should be considered in full knowledge of the likely consequences for health. Information to assess potential impacts on health can be required through various mechanisms, such as sustainability appraisal of development plans and environmental impact assessments, and where relevant, health impacts should be incorporated into such assessments.'*

How is this addressed?

- 863 Impacts to health are assessed in sections 12.9, 12.10, 12.11 and 12.12 of the ES Chapter

Future Wales – The National Plan 2040

- 864 Future Wales – The National Plan 2040 sets out a strategy for addressing key national priorities through the planning system, including sustaining and developing a vibrant economy, achieving decarbonisation and climate-resilience, developing strong ecosystems and improving the health and well-being of communities.

How is this addressed?

- 865 Impacts to health are considered throughout the Chapter and assessed in sections 12.9, 12.10, 12.11 and 12.12 of the ES Chapter.

Denbighshire County Council Local Development Plan: Policy VOE 10

Development proposals which promote the provision of renewable energy technologies may be supported providing they are located so as to minimise visual, noise and amenity impacts and demonstrate no unacceptable impact upon the interests of nature conservation, wildlife, natural and cultural heritage, landscape, public health and residential amenity.

How is this addressed?

- 866 Impacts to health are assessed in sections 12.9, 12.10, 12.11 and 12.12 of the ES Chapter.

EIA Regulations 2017 Part 1.4 (2)(a)

867 The EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the proposed development on the following factors — (a) population and human health.

How has this been addressed?

868 This is addressed in section 12.4 of the ES Chapter.

6.28.5 Considerations for the Secretary of State

869 Paragraphs 4.13.1 to 4.13.5 of EN-1 set out matters relevant to Public Health. It is recognised that *"access to energy is beneficial to society and human health as a whole"*. It is recognised in EN-1 that producing energy required by the UK requires significant infrastructure, including large scale projects.

870 Where the proposed project has an effect on human beings, EN-1 states that the ES should assess these effects for each element of the project, identifying any adverse health impacts, and identify measures to avoid, reduce or compensate for these impacts as appropriate.

871 EN-1 recognises that *"generally, those aspects of energy infrastructure which are most likely to have a significantly detrimental impact on health are subject to separate regulation (for example air pollution) which will constitute effective mitigation of them, so that it is unlikely that health concerns will either constitute a reason to refuse consent or require specific mitigation under the Planning Act 2008. However, the [Secretary of State] will want to take account of health concerns when setting requirements relating to a range of impacts such as noise"*. Where relevant, these potential effects are assessed under the relevant ES Chapters, such as Volume3, Chapter 12: Air Quality (application ref: 6.3.12) and Volume 3, Chapter 10: Noise and Vibration (application ref: 6.3.10).

- 872 Section 2.10 of NPS EN-5 considers the potential for Electro-Magnetic Fields (EMF) to arise as a result of new power transmission projects, and suggest an approach to mitigation for EMF effects, where they might occur. the applicant has considered the potential for the generation of EMFs as a result of the onshore components of the project. The ES Chapter considered potential effects on Public Health as a result of EMF and concluded that the effect would be of negligible adverse significance.
- 873 The assessment of Health has had regard to the relevant requirements for assessment and has been carried out in accordance with those requirements.
- 874 The construction, operation and decommissioning of AyM will be carried out in accordance with the relevant NPSs and other identified material planning policy matters. The environmental information and assessment carried out for AyM demonstrates that there is no conflict with any of the conditions set out by the NPSs which would lead to a refusal of development consent on the grounds of Public Health.
- 875 The environmental information and assessment carried out for AyM concludes that there are no significant effects with regard to public health. Effects on public health should therefore not weigh against the substantial benefits of AyM when considering the planning balance of the Application.

7 Balance of Considerations and Overall Conclusions

- 876 The fundamental test to be applied in the decision-making process is whether, on balance, the project is in accordance with the relevant NPSs (except to the extent that one or more of the matters set out in Section 104(4) to 104(8) applies). This Statement has set out the AyM Project as set out in the DCO application, the background and context of the development, and the legal and policy context within which it will be examined and decided. This Planning Statement has also considered the need for AyM, the Application's consistency with relevant planning policy, and the planning balance including both beneficial and adverse effects.
- 877 In determining this application, the wider benefits of offshore wind and AyM specifically must be weighed against any adverse impacts that have been identified as well as any local issues and concerns. This balancing exercise must also consider the context of national, UK and European policies and obligations that seek to tackle climate change, deliver security of the UK's energy supply and promote the necessary shift to renewable energy.

7.1.1 Project Need

- 878 As established in Section 5 of this Planning Statement: Need for the Project, the AyM project would make a significant contribution to meeting national need, in accordance with policy set out in Part 3 of NPS EN-1. Specifically, as a result of the proposed AyM project, this application:
- ▲ Meets need in the UK for the types of energy infrastructure covered by EN-1, and contributes significantly towards the Welsh and UK's current cumulative electricity supply deployment target for 2030, enough for approximately 400,000 households, necessary in order to achieve energy security at the same time as dramatically reducing greenhouse gas emissions (paragraph 3.1.1);

- ▲ would contribute to the delivery of the 33 GW of renewable energy envisaged in NPS EN1 and the ambition to deliver 40 GW of offshore wind by 2030 as set out in the UK Government's 2021 announcement; a figure which as noted previously was revised upward to 50 GW by 2030 in the April 2022 UK Government Energy Security Statement. The scale of this ambition is possible due to the costs of offshore wind falling significantly in the last decade, driven by competitive allocation of support, technological innovation and reductions in the cost of capital due to the risk profile coming down, which has brought benefits to UK energy consumers and enhanced competitiveness which in turn supports the viability of the project.
- ▲ Should therefore be assessed on the basis that the Government has demonstrated that there is a need for renewable energy infrastructure, that the scale of the need is significantly in excess of what is currently being promoted and that the need for renewable energy is urgent (paragraphs 3.2.3 and 3.4.5 of EN-1); and in accordance with NPS policy *the Examining Authority and the [Secretary of State] should give substantial weight to the contribution which the project would make towards satisfying this need* (paragraph 3.1.4 of EN-1).

879 The need for AyM and offshore wind in general is therefore clearly supported by the extant NPS EN-1, with an increased support noted in the draft EN-1 and EN-3, in addition to wider governmental obligations and objectives relating to low carbon electricity generation, climate change and the economy. The contribution AyM would make to these objectives and the confirmation of the need for the development has been set out in Section 5.

7.1.2 Project Benefits

- 880 The Application's consistency with relevant planning policy, primarily NPS EN-1 and EN-3, and EN-5, has been demonstrated throughout Section 6 (Planning Assessment) broadly, and Section 6.4 (Site Selection and Alternatives) specifically. NPS EN-1 (para 4.1.5) identifies that, where there is a conflict between a development plan and the NPS, the NPS prevails for the purpose of decision making, given the national significance of the infrastructure. The consistency with the NPSs and other relevant policy is further detailed in the individual Chapters of the Environmental Statement and supporting documents. Of particular note is the consistency with the draft (as of March 2022) NPSs for which an account is given in all relevant technical Chapters of the ES, and in this Planning Statement where relevant.
- 881 In relation to the benefits of the project, NPS EN1 paragraph 4.1.3 makes clear that in addition to any adverse impacts of a development "*the [Examining Authority and [Secretary of State] should take into account its potential benefits including its contribution to meeting the need for energy infrastructure, job creation and any long term or wider benefits*".
- 882 Paragraph 4.1.4 makes clear that "*These may be identified in this NPS, the relevant technology-specific NPS, in the application or elsewhere (including in local impact reports)*" and paragraph 4.2.2 gives the examples that "*This information could include matters such as employment, equality, community cohesion and well-being*". The NPS also requires, under individual topic areas, that potential benefits of a development in relation to those areas should be taken into account.
- 883 Consideration of the weight that may be ascribed to both beneficial and adverse effects for individual topics has been set out in Section 7 under 'Considerations for the Secretary of State'. In reaching its judgement, the applicant has assessed the policy context relating to a range of topics and interests (as set out in the NPSs and other relevant national and local policies) against the findings of the ES.

884 The proposed AyM project includes significant benefits both embedded within the project including its design, and to be applied through mitigation measures, plans and strategies established under the requirements of the application draft DCO. Below are some of the key benefits of the development, which should be taken into account under NPS policy, some of which address other government policy objectives as well:

- ▲ Meeting the need for energy generation: as set out in section 5, providing clean energy for 500,000 homes,
- ▲ In overall terms meeting approximately 6% of the Wales' electricity consumption, and making a significant contribution towards Wales' target of 70% renewables by 2030, and the ambitious UK's deployment target of 40 GW by 2030 (a figure which was revised upward to 50 GW by 2030 in the April 2022 UK Government Energy Security Statement);
- ▲ Carbon dioxide emissions reduction: During its operation, the AyM project will contribute to meeting global, European and national targets on carbon dioxide (CO₂) reduction in line with the Climate Change Act 2008 (2050 Target Amendment) Order 2019 which means that the minimum percentage by which the net UK carbon account for the year 2050 must be lower than the 1990 baseline is increased from 80% to 100%, achieving this target is key to the UK's Paris 2015 Commitments, which pledged to achieve at least a 40% domestic reduction in greenhouse gases by 2030 compared to 1990 levels (European Commission 2017b) and the proposed AyM project would contribute significantly towards these targets; hence a key benefit of the project is its delivery against CO₂ reductions targets;
- ▲ Meeting UK national targets for renewable energy: the Government transposed the Renewable Energy Directive into UK law, primarily through The Promotion of the Use of Energy from Renewable Sources Regulations 2011, which set targets to deliver on the Renewable Energy Directive by sourcing 15% of all energy from renewables by 2020;

- ▲ Biodiversity benefits: paragraph 5.3.6 of NPS EN-1 expands on the benefits of carbon emissions reductions in the area of biodiversity, stating that the Examining Authority/SoS *"should take account of the context of the challenge of climate change: failure to address this challenge will result in significant adverse impacts to biodiversity....The benefits of nationally significant low carbon energy infrastructure development may include benefits for biodiversity and geological conservation interests and these benefits may outweigh harm to these interests"*, the contribution towards the UK's current cumulative electricity supply deployment target for 2030, and the displacement of an equivalent proportion of energy supply coming from fossil fuel burning sources is a demonstrable benefit for biodiversity and should be taken into account;
- ▲ Socio-economic and local businesses: an increased use of local accommodation and businesses during off-peak season for tourism is also included in the Tourism and Recreation ES Chapter, with further benefits noted in the Socio-Economics ES Chapter as a benefit of the project. As context for these benefits, RWE (a major shareholder of AyM Offshore Wind Farm Limited), operates 2.2 GW of wind, including the AyM sister project GyM, generating around 12% of all electricity generated in the UK. In addition to the established wind farms RWE recently constructed the Triton Knoll OWF project (857 MW), and are constructing the Sofia OWF project which anticipates a capacity of 1.4 GW. Examples of the already established socio-economic benefits of these already consented and/ or constructed projects, and RWE's wider presence in Wales, to local businesses include: an overall investment of £3 billion pounds into Wales alone, with the GyM project investing £90 million in Wales during construction, and creating 100 long-term, skilled jobs at the Port of Mostyn; and a forecast £15 billion investment in the UK more broadly;
- ▲ Employment and socio-economic: the Socio-Economic ES Chapter also significantly establishes that employment benefits of the project range from negligible to major beneficial, creating an estimated peak employment of over 300 staff per day during onshore construction and between 100 to 300 Full Time Equivalent (FTE) jobs for offshore construction within north Wales;

- ▲ Skills and investment: similarly, examples of skills benefits already established by RWE in north Wales and UK-wide are demonstrated in its investment in local training. RWE has sought to upskill the future generation through creation of its Wind Turbine Apprenticeship Programme in partnership with Grŵp Llandrillo Menai, which officially opened in 2012 as the UK training hub. The course has trained 30 new apprentices producing high quality technicians who are primarily deployed on offshore and onshore wind farms, both locally and across the United Kingdom (UK) constituting further evidence of significant legacy benefits of the project, which should be taken into account under paragraph 5.12.8 of NPS EN-1
- ▲ Transition to a low carbon economy: In line with the Low Carbon Transition Plan (2009) and the UK Government Carbon Budgets 2016, one of the key drivers of the policies and UK Government initiatives which support the development of renewable energy in the UK, Europe and further afield, is the recognition of the need to transition to low carbon economies. The generation of utility-scale quantities of electricity from renewable energy sources, such as the proposed AyM project, will have a significant impact on meeting these policy objectives.

885 Mitigation measures also include benefits. The OLEMP (application ref: 8.4) for example will provide benefits through consultation and involvement of the LPA to optimise the effectiveness of detailed landscaping proposals, and areas of ecological enhancement.

886 This Planning Statement furthermore establishes the accordance of the proposed AyM project with NPS policy in all respects. Where minor adverse or similar impacts are identified in the application, these are in no cases significant enough to constitute a conflict with such policy.

887 In addition, the proposed Requirements in the application draft DCO are considered in accordance with NPS policy.

7.1.3 Conclusion

888 It is acknowledged that there are unavoidable (but reversible) significant seascape and landscape effects predicted, with associated unavoidable visual effects on the Llandudno pier and a concomitant short term adverse effect on the tourism economy.

- 889 There are also anticipated potentially significant, temporary adverse impacts on hedgerows and coastal dune invertebrates at a county level in the short term until the proposed mitigation is sufficiently mature and become established.
- 890 It is also noted that all predicted significant effects have been mitigated as far as practicable, and are the only significant adverse effects predicted for the project. When taking the project as a whole, however, it is not considered that there are any adverse effects, individually or cumulatively, that would be sufficient to outweigh the substantial benefits and need case of AyM.
- 891 The proposed AyM project would make a significant contribution to the achievement of the Welsh and broader UK national renewable energy targets, and to the UK's contribution to global efforts to reduce the effects of climate change. The proposed AyM project has the potential to make a substantial contribution to UK 2030 energy targets, providing ~1.8% of the 40 GW target. Moreover, the proposed AyM project would have a direct positive benefit by providing a secure renewable energy supply for approximately 500,000 UK homes. The proposed project would reduce carbon emissions and contribute to the economy by providing socio-economic and other benefits that should be taken into account under NPS and other Government policies and legislation. The AyM project will also make an important contribution to energy security, seen as a critical driver for UK renewable energy.
- 892 For all of the above reasons, the Secretary of State can conclude that the proposed AyM project would bring significant benefits under a range of national, international and local policy considerations, would be in accordance with relevant NPSs and legislation, and:
- ✦ Would not lead to the UK being in breach of any of its international obligations;
 - ✦ Can be satisfied that the benefits of the proposed development outweigh any adverse impacts;
 - ✦ That there is no condition prescribed for deciding the application otherwise than in accordance with the relevant extant NPSs; and
 - ✦ That under the terms of S104 PA2008, the development should therefore be consented.

8 References

- White, S. Michaels, S. King, H. 2019a. Seascape and visual sensitivity to offshore wind farms in Wales: Strategic assessment and guidance. Stage 1- Ready reckoner of visual effects related to turbine size. NRW Evidence Series. Report No: 315, 94pp, NRW, Bangor.
- White, S. Michaels, S. King, H. 2019b. Seascape and visual sensitivity to offshore wind farms in Wales: Strategic assessment and guidance. Stage 2- Guidance on siting offshore windfarms. NRW Evidence Series. Report No: 330, 29pp, NRW, Bangor
- White, S. Michaels, S. King, H. 2019c. Seascape and visual sensitivity to offshore wind farms in Wales: Strategic assessment and guidance. Stage 3- Seascape and visual sensitivity assessment for offshore wind farms. NRW Evidence Series. Report No: 331, 96pp, NRW, Bangor.



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