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MONA OFFSHORE WIND PROJECT

Cumulative Effects Assessment of Bodelwyddan Solar and Energy Storage Project

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Image of an offshore wind farm

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Contents

Glossary

Term	Meaning
Applicant	Mona Offshore Wind Limited.
Bodelwyddan National Grid Substation	This is the Point of Interconnection (POI) selected by the National Grid for the Mona Offshore Wind Project.
Development Consent Order (DCO)	An order made under the Planning Act 2008 granting development consent for one or more Nationally Significant Infrastructure Project (NSIP).
Environmental Statement	The document presenting the results of the Environmental Impact Assessment (EIA) process for the Mona Offshore Wind Project.
Mona Offshore Cable Corridor	The corridor located between the Mona Array Area and the landfall up to MHWS, in which the offshore export cables will be located.
Mona Offshore Wind Project	The Mona Offshore Wind Project is comprised of both the generation assets, offshore and onshore transmission assets, and associated activities.
Mona Onshore Development Area	The area in which the landfall, onshore cable corridor, onshore substation, mitigation areas, temporary construction facilities (such as access roads and construction compounds), and the connection to National Grid substation will be located
Relevant Local Planning Authority	The Relevant Local Planning Authority is the Local Authority in respect of an area within which a project is situated, as set out in Section 173 of the Planning Act 2008. Relevant Local Planning Authorities may have responsibility for discharging requirements and some functions pursuant to the DCO, once made.
The Planning Inspectorate	The agency responsible for operating the planning process for NSIPs.

Acronyms

Acronym	Description
BESS	Battery Energy Storage System
CEA	Cumulative Effects Assessment
DCO	Development Consent Order
EIA	Environmental Impact Assessment
PEDW	Planning Environment Decisions Wales
SPV	Special Purpose Vehicle

Units

Unit	Description
km	Kilometres

1 CUMULATIVE EFFECTS ASSESSMENT OF BODELWYDDAN SOLAR AND ENERGY STORAGE PROJECT

1.1 Introduction

1.1.1.1 Mona Offshore Wind Limited (hereafter referred to as 'the Applicant') submitted a Development Consent Order (DCO) application for the Mona Offshore Wind Project on 22 February 2024. The DCO application included an Environmental Statement, which presented results of the Environmental Impact Assessment (EIA), encompassing a Cumulative Effects Assessment (CEA).

1.1.1.2 The CEA identified those projects, plans or activities with which the Mona Offshore Wind Project may interact to produce a cumulative effect. Information on other projects, plans or activities which was publicly available in November 2023 (up to three months before the application) was considered in the CEA.

1.1.1.3 A Review of Cumulative Effects Assessment was submitted at Deadline 3 (REP3-058), covering both offshore and onshore topics within the Environmental Statement updating the CEA with information published up to 23 September 2024 .

1.1.1.4 On 20 December 2024, Bodelwyddan Solar and Energy Storage Limited (a Special Purpose Vehicle (SPV) owned by Island Green Power UK Limited) submitted an EIA Scoping Direction Request to Planning Environment Decisions Wales (planning application reference number 40/2024/1575/EIA-SCO).

1.1.1.5 This document has been prepared to consider the potential cumulative effects of the Bodelwyddan Solar and Energy Storage project in response to the Examining Authority (ExA) Rule 17 Letter issued 8 January 2025.

1.2 Bodelwyddan Solar and Energy Storage Project

1.2.1 Overview of Project

1.2.1.1 The Bodelwyddan Solar and Energy Storage project proposes the construction, operation and maintenance of proposed solar photovoltaic electricity generating system and battery energy storage system ('BESS'), associated solar arrays, inverters, transformers, cabling, substations, access tracks landscaping, ecological enhancement areas and associated ancillary development on Land near Bodelwyddan, Denbighshire, Conwy border, North Wales, LL22 9SD.

1.2.2 Site Location and Proximity to Mona Offshore Wind Project

1.2.2.1 The site for the Bodelwyddan Solar and Energy Storage project comprises two parcels of land and a connecting cable corridor in the vicinity of National Grid's Bodelwyddan substation. The larger parcel of land (153.78 ha), referred to as the 'Solar Site', is located to the northwest of Bodelwyddan, at a distance of approximately 4 km northwest of the site for the proposed Mona Onshore Substation.

1.2.2.2 The smaller parcel of land (6.52 ha), a battery energy storage facility, referred to as the 'BESS site' is located south of St Asaph Business Park and west of National Grid's Bodelwyddan substation. Approximately 4.3ha of the BESS site is located within Work Area 25 of the Mona Offshore Wind Project as shown on the Works Plan – Onshore (B3 F03). The boundary of the BESS site also overlaps with the National Grid extension of the Bodelwyddan substation.

1.2.2.3 The indicative cable route will link the solar site to the BESS site: the route is approximately 5km in length and will be entirely undergrounded.

1.2.3 BESS Site

1.2.3.1 The BESS site will include the following:

- Substation compound
- Power conversion systems (PCS)
- BESS units
- Associated infrastructure (e.g. construction track)

1.2.3.2 The parameters of the BESS units and PCS could be up to 16m x 3m with a maximum height of 3.2m.

1.2.3.3 The indicative layout in the Scoping Direction Request report shows the substation compound to the north of the BESS site, with the energy storage systems and PCS in the south with the whole BESS site surrounded by a palisade fence. No permanent lighting is proposed, however motion sensing lighting will be provided within the BESS site for maintenance and security.

1.2.3.4 Landscaping and biodiversity mitigation will be provided within the overall boundary of the Bodelwyddan Solar and Energy Storage project, however the location of mitigation has not been defined.

1.2.3.5 Construction of the Bodelwyddan Solar and Energy Storage project is expected to take between 12 to 24 months. A construction programme was not provided in the Scoping Direction Request, however for the purpose of this report, it is assumed that construction be undertaken concurrently with the Mona Offshore Wind Project.

1.2.4 Environmental Topics

Scoped In

1.2.4.1 The Scoping Direction Request summarises the potentially significant environmental effects of the construction, operation and decommissioning of the Bodelwyddan Solar and Energy Storage project . The scoping report (informed by desk-based research, professional judgement and information available for the site) sets out the proposed focus and scope of the Environmental Statement:

- Biodiversity
- Landscape and Visual Effects (including a Glint and Glare Assessment)
- Historic Environment.

Scoped Out

1.2.4.2 The Scoping Direction Request proposes to scope out all other topics out of the Environmental Statement on the basis that no significant effects are considered likely. These topics are:

- Water resources and flood risk
- Socio-economics
- Archaeology

- Air quality
- Noise and vibration
- Transport
- Climate change
- Contaminated land
- Wind
- Daylight sunlight overshadowing
- Agricultural land
- Waste
- Lighting
- Major accidents and disasters

1.2.4.3 The Scoping Direction Request also proposes to prepare technical reports that provide justification for why the topics should be scoped out the Environmental Statement.

1.2.5 Cumulative Developments

1.2.5.1 The Environmental Statement will consider developments that may lead to cumulative effects. The Scoping Direction Request sets out a list of cumulative developments identified by Bodelwyddan Solar and Energy Storage Limited for consideration in the project's CEA. Mona Offshore Wind Farm Project is identified in the table as a project to be scoped out of the CEA. No justification for the scoping out of the Mona Offshore Wind Farm Project is stated.

1.2.5.2 The National Grid Electricity Transmission proposal to extend the existing Bodelwyddan electricity substation is also not identified as a project for consideration in the project's CEA.

1.3 Cumulative Effects Assessment

1.3.1 Methodology

1.3.1.1 The Mona CEA methodology is described in full in Volume 1, Chapter 5: Environmental Impact Assessment methodology (APP-052).

1.3.1.2 The Bodelwyddan Solar and Energy Storage project (planning application reference number 40/2024/1575/EIA-SCO) has been identified as having published additional assessment material since the Mona CEA was undertaken. Consequently, the conclusions of the Mona CEA assessments for each onshore topic considered have been reviewed. The conclusions presented for each of the topic CEA is shown below.

1.3.1.3 This document has been prepared to supplement, but not replace, the Mona CEA undertaken in Volume 3 of the Environmental Statement (APP-064 to APP-073).

1.3.1.4 The following sections present a summary of the cumulative effects based on the structure in the Mona Offshore Environmental Assessment

1.3.2 Topics Scoped into the Scoping Direction Request

1.3.2.1 The findings of the Scoping Direction Request in relation to the Mona Offshore Wind Project CEA and are considered below focusing on the predicted impacts associated with the BESS site.

Biodiversity

Designated sites

1.3.2.2 There is no potential for significant cumulative effects on the following internationally designated sites identified in the EIA Scoping Report, as none of these sites were scoped into the Onshore Ecology chapter for the Mona Offshore Wind Farm; Elwy Valley Woods Special Area of Conservation (SAC), Creuddyn Peninsula Woods SAC, Llywn SAC, Dee Estuary SAC/ Special Protection Area (SPA)/ Ramsar and Halykn Mountain SAC.

1.3.2.3 A review of the nationally and locally designated sites scoped into the biodiversity assessment of the Bodelwyddan Solar and Energy Storage project identified three sites that were also relevant to the Mona Offshore Wind Farm Project; Coedydd ac Ogofau Elwy a Meichion Site of Special Scientific Interest (SSSI), Coed Cord Local Wildlife Site (LWS) and Coed y Saeson LWS.

1.3.2.4 Given the very small habitat losses within the BESS site, which may include a short section of hedgerow (approximately 100 m), it is reasonable to conclude there is no potential for significant cumulative effects with the Mona Offshore Wind Project on lesser horseshoe bats (*Rhinolophus hipposideros*) that are part of the Coedydd ac Ogofau Elwy a Meichion SSSI, which may be foraging/ commuting in habitats around the Bodelwyddan substation.

1.3.2.5 The Bodelwyddan Solar and Energy Storage project does not directly impact Coed Cord LWS and Coed y Saeson LWS and is > 100 m from the nearest part of the designated woodlands. Therefore, there is no potential for significant cumulative effects (direct or indirect) with the Mona Offshore Wind Project.

Great crested newt

1.3.2.6 The Scoping Direction Request confirms that there are no ponds within the BESS site boundary but several within 250 m in the vicinity of Bodelwyddan Substation that support great crested newts (GCN) (*Triturus cristatus*). The GCN population in ponds around Bodelwyddan Substation is considered to be part of the nationally important St Asaph GCN metapopulation, which extends to ponds within and surrounding the Mona Onshore Substation. There is therefore potential for cumulative effects on the St Asaph GCN metapopulation in the absence of mitigation, as a result of permanent terrestrial habitat losses within the BESS site footprint in-combination with the Onshore Substation footprint.

1.3.2.7 An extensive package of GCN mitigation has been developed for the Mona Offshore Wind Farm project, which includes pond enhancement, new pond creation and substantial areas of terrestrial habitat enhancement/ creation (including grassland and hedgerows). This will be delivered under a European Protected Species Mitigation (EPSM) licence from Natural Resources Wales (NRW), the principles of which have been agreed with NRW in the SoCG (S_D1_13 F03). Furthermore, habitat within the BESS site is mainly arable habitat, which is of negligible value for GCN, and therefore

the effects of permanent cumulative habitat loss on the St Asaph GCN metapopulation are assessed as **negligible (not significant)**.

Other species

1.3.2.8 Given the small area of land permanently lost to the BESS site, it is considered that there is no potential for significant cumulative effects on species that may be present (or have been confirmed present) within the BESS site that also occur within the Mona Offshore Wind Farm study area; breeding and wintering birds, bats (roosting and foraging/ commuting) and badger (*Meles meles*).

Conclusion

1.3.2.9 The Mona CEA predicted only minor impacts upon onshore ecology receptors and no significant effects were predicted. It is considered that this conclusion would remain with the inclusion of the Bodelwyddan Solar and Energy Storage project .

Landscape and visual resources

Landscape

1.3.2.10 There is potential for significant localised cumulative effects due to the Mona Onshore Substation and the BESS site. There is limited, if any, potential for significant cumulative effects due to the addition of Mona Onshore Substation with the Solar Site. Although the Solar Site is of considerable scale in terms of footprint, it will be located within a relatively flat farmed landscape and the proposed structures, measuring a maximum of 4.55 m in height (paragraph 3.2.4 of the Scoping Direction Request), would have limited influence over the surrounding landscape. The cumulative effects with the Mona Onshore Substation would be very limited due to separation distance and the screening afforded by intervening wooded vegetation along with the built up area of Bodelwyddan and the busy A55 Road.

1.3.2.11 The timing of the construction and the decommissioning activities is not specified in the Scoping Direction Request. For the purpose of this report it has been assumed that the construction of the Bodelwyddan Solar and Energy Storage project will overlap with the construction and of the Mona Offshore Wind Project onshore infrastructure. There is the potential for localised short term cumulative effects..

1.3.2.12 The LANDMAP Visual and Sensory Aspect Area entitled Cefn Estate Mosaic Rolling Lowland (DNBGHVS033) will be directly affected by both the Mona Onshore Substation and the 'BESS site' both of which will be located within this LANDMAP Aspect Area, in close proximity to each other and south of the St Asaph Business Park. However, the cumulative effects are expected to be localised. Taking into account the mitigation measures, proposed for the Mona Onshore Substation, the additional, cumulative impact on the fabric of the Cefn Estate Mosaic Rolling Lowland (DNBGHVS033), as a whole, will be **medium.** The Cefn Estate Mosaic Rolling Lowland is of **medium** sensitivity to the proposed change and the cumulative effect during operations and maintenance is considered to be **moderate** adverse and not significant. This assessment assumes a worst case scenario in the absence of any planting mitigation for the BESS site as there is no detail on this in the Scoping Direction Request. Cumulative effects may be lower depending on the nature of the planting mitigation proposed at the BESS site.

1.3.2.13 The Mona onshore transmission assets will not be located within any nationally designated landscapes or any locally designated landscapes (SLAs) and hence no cumulative effects on the fabric of these landscapes will arise.

1.3.2.14 In respect of Nationally designated landscapes, there is potential for indirect cumulative effects on the aesthetic aspects and character of the Clwydian Range and Dee Valley NL due to the visibility of the Mona Onshore Substation in addition to the Bodelwyddan Solar and Energy Storage project . These cumulative effects are expected to be limited due to distance and the screening afforded by intervening woodlands and settlements, as well as the low nature of the solar panels and the BESS infrastructure. The additional cumulative effects are judged to be **minor** reducing to **negligible** as the landscape mitigation becomes established.

1.3.2.15 In respect of locally designated landscapes, Both the Rhyd y Foel to Abergele and Elwy and Aled Valleys SLAs (Figure 6.2 in APP-069), fall outside the ZTV of the Mona Onshore Substation (Figure 6.8 in APP-069). As such there is no potential for significant cumulative effects on the aesthetic aspects of these landscapes.

1.3.2.16 Cumulative indirect effects on the character of the LANDMAP Visual and Sensory Aspect Area entitled Cefn Estate Mosaic Rolling Lowland (DNBGHVS033) will arise due to the addition of the Mona Onshore Substation alongside the 'BESS site'. The additional cumulative effects are judged to be **moderate** and not significant. This is due to the fact that the cumulative effects would be localised within this landscape receptor and the height of the elements at the proposed Bodelwyddan Solar and Energy Storage project .

Visual

1.3.2.17 The 'BESS Site' and the Mona Onshore Substation will be visible together in some local views, either in combination or sequentially. There is potential for significant cumulative effects for viewers including recreational walkers along the surrounding footpath within a 1 km distance of the Mona Onshore Substation. Visual receptors located further afield are not expected to experience significant cumulative visual effects.

1.3.2.18 The Scoping Direction Request refers to a viewpoint 23 - North Wales Pilgrim's Way Promoted Road looking NW. This equates to Mona Representative Viewpoint 6 Local road at Ty'n-y-ffordd-fawr. Viewer sensitivity to the proposed Mona onshore infrastructure is assessed as high at this location however the infrastructure at the BESS site would be barely visible (if it is visible at all). The magnitude of cumulative visual impact would be negligible resulting in a **negligible** and not significant cumulative visual effect.

Conclusion

1.3.2.19 The Mona CEA predicted up to moderate impacts upon landscape and visual resources receptors and no significant effects were predicted. It is considered that this conclusion would remain unchanged with the inclusion of the Bodelwyddan Solar and Energy Storage project .

Historic environment

1.3.2.20 The potential impact of the proposed Bodelwyddan Solar and Energy Storage project on above ground historic assets as a result of change within their setting is much lower than the potential impact of the Mona Onshore Substation.

1.3.2.21 In respect of the Grade II listed Pentre Meredydd (Site 251) the magnitude of the cumulative impact is considered to be medium adverse and the sensitivity of the receptor is medium. The effect will therefore be **moderate adverse**, which is significant in EIA terms. This would reduce over time as the landscape planting around the Mona Onshore Substation reaches maturity resulting in a cumulative effect of **minor adverse** significance which is not significant in EIA terms. The greatest part of the cumulative impact would be from the Mona Onshore Substation.

1.3.2.22 In respect of all other historic assets, the magnitude of the cumulative impact is deemed to be up to negligible and the sensitivity of the receptor is considered to be up to high. The effect will, therefore, be of up to **minor adverse** significance, which is not significant in EIA terms. However, effects would be long term and in all cases would be fully reversible. The greatest part of the cumulative impact would be from the Mona Onshore Substation.

1.3.2.23 The potential impact of the proposed Bodelwyddan Solar and Energy Storage project on the character of the historic landscape is lower than the potential impact of the Mona Onshore Infrastructure in this area. Overall, the magnitude of the cumulative impact is deemed to be up to low and the sensitivity of the receptor is considered to be up to low. The effect will, therefore, be of negligible or **minor adverse** significance, which is not significant in EIA terms. The effect would be long term and would be fully reversible. The greatest part of the cumulative impact would be from the Mona Onshore Infrastructure.

1.3.2.24 The Mona CEA predicted only minor impacts upon historic environment receptors (no significant effects) with the exception of the moderate impact on the Grade II listed Pentre Meredydd (significant effect). It is considered that this conclusion would remain unchanged with the inclusion of the Bodelwyddan Solar and Energy Storage project .

1.3.3 Topics Scoped out of the Scoping Direction Request

Geology, Hydrogeology and Ground Conditions

1.3.3.1 The Scoping Direction Request identifies that the BESS site is underlain by Till deposits with Warwickshire Group bedrock geology. The report does not identify any public or private groundwater supply abstractions. The BESS site currently comprises agricultural land and it is considered that the potential for contamination to be present is very low. Construction impacts on ground conditions regarding storage of fuel and chemicals would be managed through a Construction Environmental Management Plan (CEMP).

1.3.3.2 The Mona CEA predicted only minor cumulative impacts upon geology, hydrogeology and ground conditions receptors and no significant effects were predicted. This conclusion remains unchanged when considering the potential cumulative effects of the Bodelwyddan Solar and Energy Storage project.

Hydrology and flood risk

1.3.3.3 The BESS site is located within an area at low risk from flooding. The Scoping Direction Request confirms that a Flood Consequences Assessment (FCA) will be prepared together with a drainage strategy for the operation of the site. The FCA and drainage strategy would be required to demonstrate that the risk of flooding would not be increased as a result of the development.

1.3.3.4 The Mona CEA predicted only minor impacts upon hydrology and flood risk receptors and no significant effects were predicted. It is considered that conclusion would remain unchanged with the inclusion of the Bodelwyddan Solar and Energy Storage project .

Buried archaeology

1.3.3.5 The Scoping Direction Request confirms that desk-based research and geophysical surveys are being undertaken to inform the need for any further surveys (such as trial trenching) to ensure that buried archaeology can be safeguarded. The report considers that the minimal nature of the ground disturbance activities associated with the construction of the Bodelwyddan Solar and Energy Storage project means that significant effects on archaeology is unlikely.

1.3.3.6 Where land within the Mona Onshore Order Limits is also potentially required for another development, whichever scheme undertakes the work across that land first would have to address the issue of the loss of, or harm to, buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest. When the next scheme requires access to that land it is very likely that the buried archaeological remains and deposits of geoarchaeological and palaeoenvironmental interest will have been removed as part of the works required for the first scheme. Consequently there would be no potential for cumulative effects.

Land use and recreation

Agricultural Land Quality and Soils

1.3.3.7 The agricultural land quality of the land within the area of the Bodelwyddan Solar and Energy Storage project has been surveyed. The area of the solar array comprises predominantly Subgrade 3b with two small pockets of Subgrade 3a land. The BESS site comprises approximately 6.52ha of entirely Subgrade 3b land

1.3.3.8 The permanent loss of agricultural land quality associated with the BESS would affect entirely lower quality Subgrade 3b land and therefore, no cumulative loss of the best and most versatile land would occur.

Farm Holdings

1.3.3.9 There would be potential for some additional temporary disruption to farm holdings located close to the Mona Onshore Substation during the construction period, with the substation for the Bodelwyddan Solar and Energy Storage project. However, it is assessed that there would be no significant cumulative effects, based on the implementation of appropriate control measures for both projects during the construction period.

1.3.3.10 Whilst there would be a loss of approximately of 6.52ha of land from agricultural production associated with the construction of the BESS, the diversification of the uses within the holding would support the operation of the remaining farming enterprise.

1.3.3.11 On the basis that continuing agricultural productivity would be possible within the operation of the solar array and that the enterprises affected would benefit financially from the diversification within their farming enterprises, it is assessed that there would be no cumulative effects on farm holdings associated within this proposal.

Recreational Resources

1.3.3.12 There is no potential for cumulative effects between this proposal and the Mona Offshore Wind Project as no common recreational resources are likely to be affected.

1.3.3.13 The Mona CEA predicted only minor impacts upon land use and recreation receptors and no significant effects were predicted. It is considered that this conclusion would remain unchanged with the inclusion of the Bodelwyddan Solar and Energy Storage project .

Traffic and Transport

1.3.3.14 The Scoping Direction Request proposes to scope out an assessment of traffic and transport from the EIA on the basis of there being no predicted significant effects on transport receptors owing to its 'limited' construction generated vehicle movements (stated as being 10 HGV trips to the site at peak times) over a temporary duration (stated as being 12 to 24 months) and 'very low' vehicle movements (stated as being two visits per month) associated with ongoing maintenance during its operational life.

1.3.3.15 On the basis that Bodelwyddan Solar and Energy Storage project seeks to scope out an assessment of traffic and transport from the EIA, it would naturally follow that it is not necessary to include it as part of a CEA. Notwithstanding, the below provides a high level consideration of whether the Bodelwyddan Solar and Energy Storage project could change the conclusions of the Mona CEA.

Screening for Assessment of Transport Cumulative Environmental Impacts

1.3.3.16 In accordance with relevant guidance, the Mona CEA undertook a screening exercise to delimit the geographic extent of cumulative assessment and identified three highway links to assess. If the predicted construction traffic flows of the Bodelwyddan Solar and Energy Storage project were to be included within the Mona CEA, the same three highway links would be identified for assessment. No additional highway links would require assessment.

The impact on driver delay caused by construction works or cumulative development traffic (including temporary delays to public transport services)

1.3.3.17 The Mona CEA set out that peak hour traffic flows with cumulative developments through key junctions along the highway network would remain very low and remain substantially lower than the level at which congestion could occur (and therefore the level at which drivers could experience delay). No significant effects were predicted. It is considered that this conclusion would remain unchanged with the inclusion of the Bodelwyddan Solar and Energy Storage project.

The impact on pedestrian delay (incorporating delay to all non-motorised users) caused by construction works or cumulative development traffic

1.3.3.18 The Mona CEA predicted only negligible impacts upon non-motorised user delay and no significant effects were predicted. It is considered that this conclusion would remain unchanged with the inclusion of the Bodelwyddan Solar and Energy Storage project.

The impact on non-motorised user amenity and fear and intimidation caused by construction works or cumulative development traffic

1.3.3.19 The Mona CEA predicted only negligible to low impacts upon non-motorised user amenity and fear and intimidation and no significant effects were predicted. It is considered that this conclusion would remain unchanged with the inclusion of the Bodelwyddan Solar and Energy Storage project.

The impact on severance caused by construction works or cumulative development traffic

1.3.3.20 The Mona CEA predicted no significant effects upon severance. It is considered that this conclusion would remain unchanged with the inclusion of the Bodelwyddan Solar and Energy Storage project.

The impact of cumulative development traffic on road safety

1.3.3.21 The Mona CEA predicted only low impacts upon road safety and no significant effects were predicted. It is considered that this conclusion would remain with the inclusion of the Bodelwyddan Solar and Energy Storage project.

1.3.3.22 The Mona CEA predicted only minor impacts upon traffic and transport receptors and no significant effects were predicted. It is considered that this conclusion would remain unchanged with the inclusion of the Bodelwyddan Solar and Energy Storage project.

Noise and Vibration

Construction

1.3.3.23 Waen Meredydd has been identified as the closest common receptor to the construction of both the cable route and BESS associated with the Bodelwyddan Solar and Energy Storage project and the construction of the 400kv grid connection of the Mona Offshore Wind Project.

1.3.3.24 The potential for impacts and effects from the construction phase for the Bodelwyddan Solar and Energy Storage project have been summarised in the Scoping Report for the proposed development. The Scoping Direction Request notes that the nature of the construction works associated with the BESS would be relatively small in scale and dispersed, such that they would not result in noise and vibration levels that would be significant over a long period. The Scoping Direction Request also confirms that Best Practicable Means and best practice advice provided in BS 5228-1:2009+A1:2014 will be employed to ensure any existing sensitive receptors in vicinity of the cable route will not be exposed to significant levels of noise or vibration over long periods.

1.3.3.25 The maximum predicted daytime construction noise level due to the Mona Offshore Wind Project is 47 dB LAeq, associated with trenchless techniques works in the vicinity of Waen Meredydd, which has been identified as a low impact. All other construction activities associated with the Mona Offshore Wind Project have been predicted to result in negligible to low impacts. This includes the dewatering of excavations during nighttime hours, which are predicted to result in negligible impacts at Waen Meredydd. Consequently. the construction impacts predicted at Waen Meredydd are predicted to lead to a minor adverse effect which is not significant in EIA terms.

1.3.3.26 As such, it is unlikely that the cumulative construction noise and vibration impacts will give rise to significant cumulative effects at Waen Meredydd due to concurrent construction of both projects

Operation

1.3.3.27 A baseline noise survey was undertaken in the vicinity of the Bodelwyddan BESS, noting that existing background noise levels measured during the night time (23:00-07:00), where impacts are likely to be highest, is 38 dB L_{A90}. Although the scoping report has not specifically identified this level as being measured at Waen Meredydd, this has been assumed for the purposes of this cumulative assessment.

1.3.3.28 The scoping report also indicates that the target rating noise levels at the location of receptors is equal to the background noise levels to ensure that the noise levels from the development does not result in a significant adverse impact at receptors.

1.3.3.29 The operational noise levels due to the Mona Onshore Substation and the BESS plant at Waen Meredydd are presented below:

- Mona Offshore Wind Project – Onshore Substation: 18 dB(A)
- Bodelwyddan BESS and Solar Farm - Bodelwyddan BESS: 38 dB(A)
- Cumulative level: 38 dB(A)

1.3.3.30 The cumulative rating level of 38 dB(A) is equal to the representative night-time background noise level at the nearest receptor. The magnitude of the cumulative impact is therefore considered to be low.

1.3.3.31 Waen Meredydd is the closest common residential receptor to the proposed works and is residential in nature. It is assumed that both the Mona Onshore Substation and the BESS will operate 24/7 and thus receptors are considered to be of high sensitivity.

1.3.3.32 Overall, the magnitude of the impact for concurrent operation of Bodelwyddan Solar and Energy Storage project and the Mona Offshore Wind Project is deemed to be low, and the sensitivity of the receptor is considered to be high. Both developments will be designed such that significant adverse effects are avoided. As such, the effect will be of minor adverse significance, which is not significant in EIA terms.

1.3.3.33 It is considered that the conclusions of the Mona CEA would remain unchanged with the inclusion of the Bodelwyddan Solar and Energy Storage project.

Air quality

1.3.3.34 Dust impacts from the construction of the BESS site would be managed in accordance with standard mitigation measures set out in a CEMP. The number of predicted construction vehicles falls below the criteria from the Institute of Air Quality Management criteria that would require undertaking a more detailed assessment. The Scoping Direction Request concludes that the potential effects are unlikely to be significant.

1.3.3.35 The Mona CEA predicted only minor impacts upon air quality receptors and no significant effects were predicted. It is considered that this conclusion would remain with the inclusion of the Bodelwyddan Solar and Energy Storage project.

Socio-economics, Human Health and Climate Change

1.3.3.36 The Scoping Direction Request concludes that the potential effects are unlikely to be significant for socio-economics, human health and climate change given the nature and scale of the Bodelwyddan Solar and Energy Storage project.

1.3.3.37 The Mona CEA for these topics predicted no significant effects. It is considered that these conclusions would remain unchanged with the inclusion of the Bodelwyddan Solar and Energy Storage project.

1.4 Conclusion

1.4.1.1 The Applicant has reviewed the information provided in the Scoping Direction Request for the Bodelwyddan Solar and Energy Storage project (as submitted in December 2024) to identify the potential cumulative impacts that may change the conclusions of the cumulative effects assessment undertaken in the Environmental Statement for the Mona Offshore Wind Project.

1.4.1.2 The Applicant confirms that no significant cumulative effects are predicted as a result of the Bodelwyddan Solar and Energy Storage project and the conclusions of its cumulative effects assessment remain unchanged.