

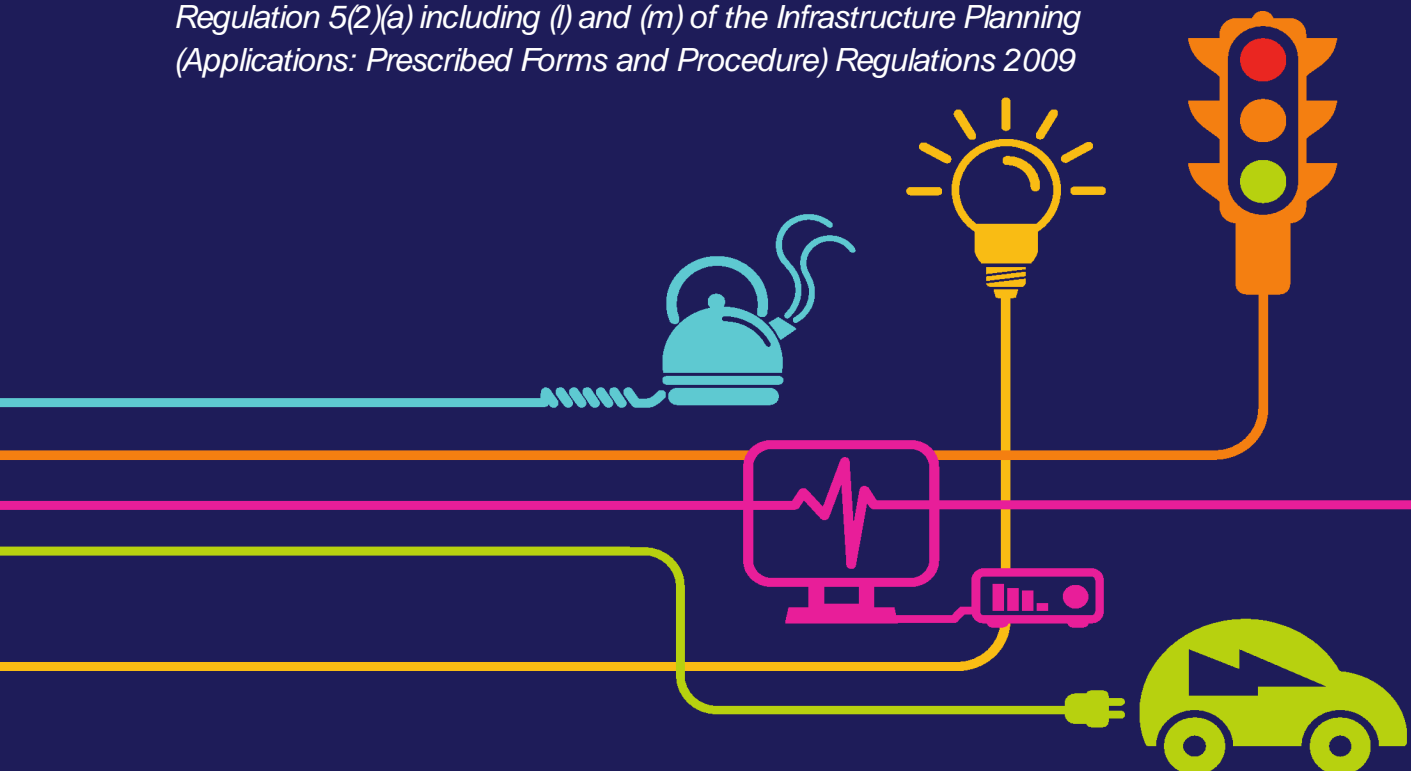
# Environmental Statement

## Chapter 20

### Inter-Project Cumulative Effects

National Grid (North Wales Connection Project)

*Regulation 5(2)(a) including (l) and (m) of the Infrastructure Planning  
(Applications: Prescribed Forms and Procedure) Regulations 2009*







# **North Wales Connection Project**

## **Volume 5**

### **Document 5.20 Chapter 20 Inter-Project Cumulative Effects**

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# 1 Introduction

## 1.1 INTRODUCTION

1.1.1 Inter-project effects occur when two or more planned developments have an effect on the same receptor leading to an increase in the effect, and possibly an effect of greater significance. It is possible that individually the developments might not result in significant effects, but when considered together they could create significant effects on a shared receptor; this would typically result from an overall increase in the magnitude (scale, duration, etc.) of effects.

1.1.2 Schedule 4 of the Infrastructure Planning (Environmental Impact Assessment) Regulations 2009 (as amended)<sup>1</sup> (Ref 20.1) states that an ES should include:

*‘A description of the likely significant effects of the development on the environment, which should cover the direct effects and any indirect, secondary, cumulative, short, medium and long-term, permanent and temporary, positive and negative effects of the development, resulting from:*

*(a) the existence of the development;*

*(b) the use of natural resources;*

*(c) the emission of pollutants, the creation of nuisances and the elimination of waste,*

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<sup>1</sup> Although the 2009 Regulations have since been superseded by the Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 (SI 2017/572) (‘the 2017 Regulations’) (Ref 20.2), the transitional arrangements for the 2017 Regulations state the 2009 Regulations continue to apply to projects for which a request for a scoping opinion was submitted prior to the date upon which the 2017 Regulations came into force, which was 16 May 2017. As the request for a scoping opinion for the Proposed Development was submitted in May 2016 the 2009 Regulations continue to apply.

*And the description by the applicant of the forecasting methods used to assess the effects on the environment.'*

- 1.1.3 The Overarching National Policy Statement for Energy (NPS EN-1) (Ref 20.3) states the following in relation to requirements for the assessment of cumulative effects:

*'When considering cumulative effects, the Environmental Statement (ES) should provide information on how the effects of the applicant's proposal would combine and interact with the effects of other developments (including projects for which consent has been sought or granted, as well as those already in existence).'*

- 1.1.4 NPS EN-1 specifically identifies the need to consider the effects of more than one development on health, different types of flooding, and cumulative socio-economic effects.

- 1.1.5 Inter-relationships between effects are also referred to as follows (para 4.2.6 of NPS EN-1):

*'The Infrastructure Planning Commission (IPC) [now the Secretary of State] should consider how the accumulation of, and interrelationship between, effects might affect the environment, economy or community as a whole, even though they may be acceptable when considered on an individual basis with mitigation measures in place.'*

- 1.1.6 Multiple effects of the Proposed Development alone on single receptors; are reported in Chapter 19, Intra-Project Cumulative Effects (**Document 5.19**).

- 1.1.7 The cumulative effects of the Proposed Development with the Wider Works are reported in Chapter 21 Statement of Combined Effects with the Wider Works (**Document 5.21**). Chapter 21 Statement of Combined Effects with the Wider Works (**Document 5.21**) has not identified any effects which would increase the reported level of significance for the Proposed Development. Therefore the Intra-Project effects including the Wider Works are as reported in Chapter 19 – Intra-Project Effects (**Document 5.19**).

- 1.1.8 This chapter considers the cumulative effects of the Proposed Development with 'other developments'; including singular and intra-effects.

- 1.1.9 The information presented in this document is also summarised in section 10 of each of the technical chapters (**Documents 5.7 to 5.18**).

## 2 Scoping Opinion

### 2.1 INTRODUCTION

- 2.1.1 A Scoping Report (Ref 20.4) for the Proposed Development was received by the Planning Inspectorate on 23 May 2016 and a scoping opinion was received from the Secretary of State (SoS) on 1 July 2016, a copy of which is available on the Planning Inspectorate's National Infrastructure Planning Website (Ref 20.5).
- 2.1.2 The Scoping Report outlined the proposed methodology for the inter-project cumulative assessment. A summary of the issues in the scoping opinion that are relevant to the inter-project cumulative effects are provided in Table 20.1 below, along with commentary about how the issue has been addressed.

Table 20.1 Issues Raised and Responses to the SoS Scoping Opinion		
Paragraph	Issue Raised by SoS	Response
3.17	The Secretary of State welcomes the consideration of cumulative effects and the intention to use the Planning Inspectorate's Advice note 17. Table 4.6 of the Scoping Report identifies major developments to be considered in the inter-project cumulative effects assessment (CEA). This identifies Glyn Rhonwy Pumped Storage project as Tier 2; however, as a DCO application for this project has been made and is likely to be determined before submission of the application for the proposed development, the Secretary of State considers that this should be Tier 1.	The Glyn Rhonwy Pumped Storage project has now been identified as Tier 1.

3.18	In addition to the projects identified in the Scoping Report, the Secretary of State is aware from the Wylfa Newydd Project Scoping Report [(Ref 20.6)] of a number of additional schemes in the vicinity which have the potential to interact with the proposed development. The Secretary of State recommends that the Applicant agrees the developments to be considered in the cumulative effects assessment with relevant consultees, including the local authorities and Natural Resources Wales (NRW).	Consultation with relevant consultees has continued in order to agree the developments to be considered in the cumulative effects assessment.
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## 3 Methodology

### 3.1 INTRODUCTION

- 3.1.1 This section outlines the approach taken in assessing the Inter-project cumulative effects.

### 3.2 GUIDANCE

- 3.2.1 PINS has published advice on the assessment of inter-project effects in the form of Advice Note 17: Cumulative Effects Assessment (Ref 20.7) relevant to nationally significant infrastructure projects (hereinafter referred to as AN17). The AN17 guidance has been adopted for the Proposed Development; supplemented, where appropriate to do so, by the Isle of Anglesey County Council's (IACC) own guidance for the assessment of cumulative effects (Ref 20.8).
- 3.2.2 The approach outlined in AN17 is set out in four stages, as summarised below:
- Stage 1 – a long list of ‘other developments’ is identified and outline information gathered by reviewing planning applications, development plans etc. Consideration is given to whether the other development is within the zone of influence (ZOI) for each topic; if it is, then the assessment progresses to stage 2.
  - Stage 2 – consideration is given to the potential temporal overlap i.e. whether the construction, operational, maintenance or decommissioning effects of the other development could coincide with those of the Proposed Development. Consideration is also given to the scale and nature of the other development, the nature of the receiving environment, whether there are ‘shared receptors’, and whether there is a ‘pathway’ for a cumulative effect to occur. At the end of stage 2 a shortlist of other development is developed for consideration in stages 3 and 4. The results of stages 1 and 2, which together comprise the shortlisting process, are presented in a matrix format (‘matrix 1’).

- Stage 3 – detailed information is gathered about each of the shortlisted other developments, typically in the form of Environmental Statements or Scoping Reports. Information may include design, location, programme, operation and decommissioning details, and reported environmental effects.
- Stage 4 – Cumulative Effects Assessment (CEA) is undertaken for the shortlisted developments. Any required mitigation is identified and apportioned, where necessary. The securing mechanism for any necessary mitigation is also identified. Stage 4 assessment findings are reported in a matrix format ('matrix 2'). The focus is on Tier 1 and 2 projects, with Tier 3 included if possible; these three tiers are described below in Table 20.2.

Table 20.2 'other development' for Inclusion in Inter-Project CEA	
Tier	Development
Tier 1	Under construction
	Permitted permission(s) not yet implemented
	Submitted application(s) not yet determined
Tier 2	Projects on the Planning Inspectorate's Programme of Projects where a scoping report <u>has</u> been submitted (NB for this assessment Tier 2 projects are also considered to include projects for which a scoping report has been submitted under the Town and Country Planning Act 1990 (as amended))
Tier 3	Projects on the Planning Inspectorate's Programme of Projects where a scoping report <u>has not</u> been submitted
	Identified in the relevant Development Plan
	Identified in other plans and programmes (as appropriate) which set the framework for future development consents/ approvals, where such development is reasonably likely to come forward

3.2.3 Further information about the four stages of the inter-project cumulative effects assessment, and how they have been followed for the Proposed Development, are provided in the following sections.

### 3.3 STAGE 1

- 3.3.1 Stage 1 of the approach outlined in AN17 requires a 'long list' of other developments to be identified, as well as high level information, such as the location/application boundary. This list has been kept under review throughout the preparation of the Environmental Statement (ES) and has been updated as required. Where 'other developments' are struck through (example) this is because they were previously identified for inclusion, but are not now being included because the 'other development' has been withdrawn or have been completed or are expected to be completed before construction of the Proposed Development and therefore are considered as part of the baseline for the assessments presented in the ES.
- 3.3.2 Please note where 'other developments' have been completed or are due to be completed before the construction of the Proposed Development commences, but are not included in the baseline/ projected baseline they are considered in this assessment; for example Llanbadrig Solar Farm.
- 3.3.3 For each of the 'other developments' identified on the 'long list' consideration has been given to whether it falls within any of the topic-specific zones of influence<sup>2</sup> (ZOIs) (NB in addition to the use of the ZOIs, professional judgement has also been applied when considering the potential for projects to interact). If the 'other development' is within any ZOI then it has been progressed to stage 2.
- 3.3.4 However, for the purposes of the landscape assessment, the ZOI is taken to be the landscape study area and any Visual and Sensory Aspect Area (VSAA) which is affected by the Proposed Development and another development. For the purpose of the visual assessment, the ZOI is taken to be whether the Zone of Theoretical Visibility (ZTV) for the Proposed Development and 'other development' overlap. An overlap in ZTVs suggests that there may be shared receptors that may be able to see both developments either in combination, within the same view, or in succession, where the observer would need to turn their head seeing each development separately. For completeness, sequential views from receptors were also considered in Stage 2. This occurs on linear routes where a receptor may pass one development before passing another development some time later. An example of this would be users of the Wales Coast Path which could be affected by two developments where the ZTVs do not overlap.

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<sup>2</sup> ZOIs are the same as the study areas described in section 6 of each of the topic chapters with the exception of the landscape and visual assessments as described in 3.3.4.

### 3.4 STAGE 2

- 3.4.1 The developments on the long list have then been evaluated to determine if they should be taken forward to the shortlist of 'other developments' for each topic. This evaluation takes into consideration the relative construction, operation and decommissioning programmes of the 'other development' (temporal scope – effects at the same time or leading to an extended duration), as well as whether there are any shared receptors or pathways for cumulative effects, and whether the scale and nature of the other development is such that a cumulative effect is likely to result.
- 3.4.2 Where negligible effects have been concluded on a particular receptor/ topic for either the Proposed Development or the 'other development' being considered, this has been used in stage 2 of the assessment to screen out the receptor/ topic (see section 3.6.4).
- 3.4.3 Any developments considered to have some potential to result in significant cumulative effects for a topic have been taken forward to create a shortlist of 'other developments' against which further assessment of the potential cumulative effects has been undertaken (stages 3 and 4).

### 3.5 STAGE 3

- 3.5.1 Information has been gathered about the developments included on the short list of 'other developments', including available design, location, programme, operation and decommissioning information and any reported environmental effects. Information gathered is from third-party information available in the public domain and no survey work to supplement information of 'other developments' has been undertaken.
- 3.5.2 A description of the Wylfa Newydd Power Station development and its various elements is provided in Appendix 20.1 (**Document 5.20.2.1**). This is reported in a separate appendix as it is a complex development consisting of multiple elements. Development descriptions for the remaining 'other developments' can be found in Appendix 20.2 (**Document 5.20.2.2**).

### 3.6 STAGE 4

- 3.6.1 The CEA undertaken is reported in a matrix format based upon the matrix 2 template appended to AN17.
- 3.6.2 For each of the developments taken forward to the shortlist of 'other development' for a topic, the effects of the Proposed Development alone on the identified shared receptor are detailed. This information is based upon the residual effects (taking into account committed mitigation) as presented



in section 9 of each of the topic chapters. The table also presents the effects on the shared receptors from the 'short listed' 'other developments'; this information has been obtained from third-party information provided with the planning applications for those developments or other publically available information/data. Where information has not been available, professional judgement has been used to identify the potential for significant cumulative effects where possible. In some instances information is lacking to the extent that a view on the likelihood of significant cumulative effects cannot be reached with any degree of certainty. Where this is because an application has yet to be submitted, it is considered reasonable for the cumulative effects with the other development to be assessed as part of the application for the 'other development'. Where information is lacking because the other development was not EIA development, then it can reasonably be concluded that there was considered to be no risk of cumulative effects occurring, as the potential for cumulative effects is a factor considered in the screening of projects under the EIA Regulations.

3.6.3 An assessment of the cumulative effects of the Proposed Development with the short listed 'other developments' is presented, along with any proposed additional mitigation. Consideration is then given to the potential for significant residual cumulative effects with this mitigation (where required) in place. The assessment of residual cumulative effects takes into consideration the following:

- duration of effect;
- extent of effect;
- the type of effect;
- frequency of effect;
- the value and resilience of the receptor; and
- the likely success of proposed mitigation.

3.6.4 The potential for cumulative effects to occur is considered for any effects that are minor, moderate or major. However, where the residual effects on a shared receptor are concluded to be negligible for either the Proposed Development or the 'other development', it is not considered possible for there to be a resulting significant inter-project cumulative effect. This is because negligible effects are, by definition, barely perceptible, and it is considered extremely unlikely that they could accumulate to the extent that a significant cumulative effect would result. Where all effects related to a particular topic are negligible, for either the Proposed Development or 'other

development', the 'other development' has not been considered at stages 3 and 4.

- 3.6.5 In the case of minor effects it is possible, if unlikely, that they could accumulate to become significant effects. Professional judgement has therefore been applied in considering the potential for significant cumulative effects to arise as a result of two or more minor effects.
- 3.6.6 In determining the significance of a cumulative effect each topic makes reference to topic specific standards and guidance as outlined in each of the technical chapters (**Documents 5.7 to 5.18**). Professional judgement has been applied in determining whether the combination of effects from two developments could result in a significant effect overall. As a guide and to aid consistency and transparency of how professional judgement has been applied, a 'significance matrix' has been developed, as presented in Table 20.3. The table illustrates the combinations of effects that require the most consideration in judging if cumulative effects are likely, and those where further consideration has not been considered necessary. In applying this approach, it is possible for two 'minor' effects to be sufficiently additive to generate a significant cumulative effect, though it is also possible that they may be considered to remain as a minor effect. As noted above however, in all cases professional judgement has also been applied to each assessment.

Table 20.3: Inter-Project Cumulative Effects - Indicative Significance Matrix			
Significance for Development 1	Significance for Development 2	Cumulative Effect possible/likely?	Likely Significance of Cumulative Effect
Major	Major	Yes - likely	Major - likely to require additional mitigation over and above the major effect of each development alone.
Major	Moderate	Yes - likely	Major – likely to require additional mitigation over and above the major effect of one development alone.
Major	Minor	Yes, but unlikely	Considered on a case by case basis, applying

Table 20.3: Inter-Project Cumulative Effects - Indicative Significance Matrix			
Significance for Development 1	Significance for Development 2	Cumulative Effect possible/likely?	Likely Significance of Cumulative Effect
			professional judgement.
Major	Negligible	No potential for cumulative effects. Negligible effects have no realistic potential to be additive.	Not applicable
Moderate	Moderate	Yes	Considered on a case by case basis, applying professional judgement. The overall effect may be considered to remain moderate or become major.
Moderate	Minor	Yes, but unlikely	Considered on a case by case basis, applying professional judgement. It is likely that the effect will remain moderate, however there is some potential for a major cumulative effect to occur.
Moderate	Negligible	No potential for cumulative effects. Negligible effects have no realistic potential to be additive.	Not applicable
Minor	Minor	Yes, but unlikely	Considered on a case by case basis, applying

Table 20.3: Inter-Project Cumulative Effects - Indicative Significance Matrix			
Significance for Development 1	Significance for Development 2	Cumulative Effect possible/likely?	Likely Significance of Cumulative Effect
			professional judgement. It is possible that a moderate cumulative effect could occur, but is more likely that the effect would remain minor.
Minor	Negligible	No potential for cumulative effects. Negligible effects have no realistic potential to be additive.	No potential for cumulative effects.
Negligible	Negligible	No potential for cumulative effects. Negligible effects have no realistic potential to be additive.	No potential for cumulative effects.

3.6.7 It is important to acknowledge that the stages of the assessment have been conducted in parallel with one another rather than following a linear process suggested by the four stages. For example the information gathered at stage 3 has informed stage 2 where the temporal scope, scale and nature of the 'other development' is appraised.

### 3.7 FLEXIBILITY WITH ORDER LIMITS AND LIMITS OF DEVIATION (LOD)

3.7.1 The residual effects from each of the technical chapters (**Documents 5.7 to 5.18**) have been used to inform the CEA. The residual effects drawn from these chapters already take account of the flexibility allowed for in the draft Development Consent Order (DCO), and have considered whether there is a potential for effects to be of greater significance should any of the

permanent or temporary infrastructure elements be moved within the LOD or Order Limits.

## 4 Inter-Project Effect Assessment

### 4.1 STAGES 1 AND 2

- 4.1.1 Information gathered to support the assessment is presented in Appendix 20.1 Inter-Project Descriptions – Wylfa Newydd Power Station (**Document 5.20.2.1**) and Appendix 21.2 Inter-Project Descriptions (**Document 5.20.2.2**). The locations of these developments are illustrated on Figure 20.1 Indicative Locations of Wylfa Newydd Power Station Developments (**Document 5.20.1.1**) and Figure 20.2 Cumulative Developments (**Document 5.20.1.2**).
- 4.1.2 Table 20.4 below presents the long list of other projects considered during stages 1 and 2. As highlighted in section 3.3.1, some have been struck through (~~example~~) because they were previously identified for inclusion, but are not now being included because they have been withdrawn, or completed, or are expected to be completed before construction of the Proposed Development and therefore are considered as part of the baseline for the assessments presented in the ES.

Table 20.4 Major Developments ‘Long List’ to be Considered in the Inter-Project CEA			
Other Development	Development Description	Tier	Distance from Proposed Development (Closest Point)
Wylfa Newydd Power Station	A new nuclear power station capable of generating 2.6 Gigawatts (GW) of electricity. Wylfa Newydd is to be situated on a 254 hectare site beside the existing Wylfa Nuclear Power Station. Consideration has been given to both the main DCO project and the various elements of	Tier 1	0 m

**Table 20.4 Major Developments ‘Long List’ to be Considered in the Inter-Project CEA**

Other Development	Development Description	Tier	Distance from Proposed Development (Closest Point)
	<p>associated development.</p> <p>On site development would include Site Preparation and Clearance works to prepare the site for the main construction stage. Landscape works and planting, drainage, surface water management systems, public access works, new power station access road and internal site roads, car parking, construction compounds and temporary works.</p> <p>Marine works would include the construction of a Cooling Water System intake and outfall, Marine Off-Loading Facility (MOLF), shore protection works, fish recovery and return system, fish deterrent system, dredging, navigation aids and breakwater structures.</p> <p>Wylfa Newydd Off-site Power Station Facilities would have an Alternative Emergency Control Centre (AECC), Environmental Survey Laboratory (ESL) and a Mobile Emergency Equipment Garage (MEEG).</p> <p>Associated development includes temporary workers’ accommodation (Site Campus), a temporary Park and Ride facility at Dalar Hir for construction workers; temporary Logistics Centre at Parc Cybi; A5025 Off-line Highway Improvements;</p>		

**Table 20.4 Major Developments ‘Long List’ to be Considered in the Inter-Project CEA**

Other Development	Development Description	Tier	Distance from Proposed Development (Closest Point)
	<p>wetland habitat creation and enhancement works at Ty du, Cors Gwawr and Cae Canol-dydd; and an electrical connection to the National Grid substation.</p> <p>Online highways improvements work to the existing A5025 (including widening, reconstructing and resurfacing the road from Valley to the Power Station Site) (These works are not covered by the application for development consent and are instead the subject of an application for planning permission under the Town and Country Planning Act 1990).</p>		
Wylfa Nuclear Power Station Decommissioning	Consent for the Decommissioning of the existing nuclear power station at Wylfa.	Tier 1	0 m
Penrhos Leisure Village	Hybrid planning application granted for the development of a leisure village at Penrhos Coastal Park; a leisure village at Cae Glas, Parc Cybi; and a residential development of up to 320 new houses at Kingsland.	Tier 1	13.63 km
Anglesey Eco Park	Outline Planning permission is in place for the Eco Park and Energy Centre. The permission includes a biomass plant, prawn growing facility, large soil less indoor vegetable growing facility, home compostable food packaging facility, the Combined	Tier 1	13.09 km



**Table 20.4 Major Developments ‘Long List’ to be Considered in the Inter-Project CEA**

Other Development	Development Description	Tier	Distance from Proposed Development (Closest Point)
	Food and Power (CFP) Centre of excellence, research and development and a deep water jetty for bulk import. Full planning has been granted for a biomass fuelled power station.		
<del>The Skerries (Sea Generation (Wales) Ltd)<sup>3</sup></del>	<del>Planning application granted to construct and operate a 10MW rated capacity demonstration array of tidal stream turbines situated 850m off the north coast of Anglesey. Installation is planned to commence in summer 2016.</del>	<del>Tier 1</del>	N/A
Parc Cybi	Outline application for a mixed use development comprising employment (B1, B2 and B8) to include offices, industrial use and hotel together with the construction of a new vehicle access was approved. The spine road and a truck stop have been completed. Full planning has been granted for the construction of a hotel. Part of the site would be used as Horizon’s Logistics Centre for Wylfa Newydd (which is assessed as part of the Wylfa Newydd Power Station development)	Tier 1	15.39 km
Rhyd-y-Groes	Planning permission to repower	Tier 1	856 m

<sup>3</sup> This project is not currently being progressed.

**Table 20.4 Major Developments ‘Long List’ to be Considered in the Inter-Project CEA**

Other Development	Development Description	Tier	Distance from Proposed Development (Closest Point)
Re-power	Rhyd-y-Groes Wind Farm.		
Holyhead Waterfront Redevelopment	Outline planning permission granted for a mixed use development consisting of a new marina, residential properties, a hotel, commercial, leisure and retail uses together with associated land reclamation and service infrastructure at Holyhead Waterfront Redevelopment, Holyhead.	Tier 1	14.15 km
Glyn Rhonwy Pumped Storage	The Glyn Rhonwy Pumped Storage Generating Station Order 2017 was made in March 2017 for the construction and operation of a pumped storage scheme with an output capacity of 99.9 megawatts (MW) at the Glyn Rhonwy and Chwarel Fawr quarries, near Llanberis.	Tier 1	6.02 km
Underground Grid Connection between Glyn Rhonwy Pumped Storage Development and Pentir Substation	Planning permission granted for the installation of underground 132 kV connection cables between the Glyn Rhonwy Storage Facility and Pentir Substation.	Tier 1	0 m
West Anglesey Demonstration Project	The West Anglesey Demonstration Zone is an area which has been identified by the Crown Estate as being a suitable location for the	Tier 2	11.52 km

**Table 20.4 Major Developments 'Long List' to be Considered in the Inter-Project CEA**

Other Development	Development Description	Tier	Distance from Proposed Development (Closest Point)
	installation of marine energy devices in the short to medium term. The Zone comprises of 37 square kilometres (km <sup>2</sup> ) and is generally based around the promontory of Holy Island.		
Holyhead Deep	A marine licence application has been approved for the installation and operation of a 0.5 MW deep Green Power plant in Holyhead Deep off the coast of Anglesey (Tier 1). If successful up to 160 devices would potentially be installed (Tier 2).	Tier 1 and Tier 2	20.84 m
A487 Caernarfon to Bontnewydd Bypass	Proposed new bypass from the Goat Roundabout on the A499/A487 junction to the Plan Menai roundabout, around Llanwnda, Dinas, Bontnewydd and Caernarfon avoiding the town centres.	Tier 1	3.91 km
Menai Science Park	Outline planning consent for the demolition of the existing farm outbuildings, erection of a science park, creation of a car park together with the creation of a new vehicular access at Junction 7 of the A55.	Tier 1	36 m
Third Menai Crossing	Construction of a third crossing across the Menai.	Tier 3	1.01 km
A55 – Junction	Proposals to include new junctions to	Tier 3	14.04 km

**Table 20.4 Major Developments 'Long List' to be Considered in the Inter-Project CEA**

Other Development	Development Description	Tier	Distance from Proposed Development (Closest Point)
15 & Junction 16 Improvement	replace roundabouts at Llanfairfechan (J15) and Penmaenmawr (J16).		
A55 Abergwyngregyn to Tai'r Meibion Improvement	Improvements to the A55 trunk road between Tai'r Meibion property and the Abergwyngregyn interchange.	Tier 1	7.55 km
Nant y Garth Landfill Site	Amendments to the finished profile of the existing inert landfill site so as to allow ease of reinstatement and to create a landform capable of establishing a woodland.	Tier 1	115 m
Caernarfon Brickworks Quarry	Temporary use of land as an extension to the existing site compound and construction traffic haul route, for the proposed A487 bypass route, and continued extraction of minerals and changes to the existing restoration scheme.	Tier 1	8.18 km
Amlwch Liquid Natural Gas (LNG)	The scheme would provide the capacity to re-gasify LNG direct from an offshore vessel at a rate of 3 billion cubic feet (bcf) per day and transport the resultant gas to the National (Gas) Transmission System ('NTS').	Tier 1	5.4 km
Green Wire	A subsea and underground cable interconnector (with associated converter stations) between the existing electricity grids in Ireland and	Tier 3	0 m

**Table 20.4 Major Developments 'Long List' to be Considered in the Inter-Project CEA**

Other Development	Development Description	Tier	Distance from Proposed Development (Closest Point)
	the UK.		
Llanbadrig Solar Farm	Construction of a 49.99 Mega Watt (MW) Solar array farm together with associated equipment, infrastructure and ancillary works on land adjacent to Rhyd Y Groes, Rhosgoch	Tier 1	1.16 km
Codling Wind Park	Consent is in place for 220 turbine offshore wind farm at Codling Bank 13 kilometres (km) off the east coast of Ireland between Greystones and Wicklow. An application for the expansion of the Wind Park for the construction of a further 200 wind turbine generators giving a potential capacity of up to 1 GW has also been submitted.	Tier 1 and Tier 3 <sup>4</sup>	89.56 km
Llangefni Link Road <sup>5</sup>	2.5 km link road around the eastern side of Llangefni	Tier 1	N/A
Grŵp Llandrillo Menai Llangefni Campus	Hybrid planning application for full planning permission for the New Engineering Centre (NEC) development and outline planning permission for residential and hotel proposals (Sites 1-5).	Tier 1	433 m

<sup>4</sup> The offshore element is Tier 1 and the onshore element is Tier 3

<sup>5</sup> Construction would be completed prior to submission and scheme operation is therefore included in the baseline.

**Table 20.4 Major Developments 'Long List' to be Considered in the Inter-Project CEA**

Other Development	Development Description	Tier	Distance from Proposed Development (Closest Point)
Dinorwig Cables	Replacement of underground cables connecting into Pentir Substation.	Tier 3	0 m
Holyhead Port Expansion	Application for a Harbour Revision Order (HRO) to authorise the expansion of Holyhead port through the reclamation of three intertidal/subtidal areas and the dredging of an approach channel. This would provide new berths and associated landside areas for port- related use.	Tier 1	16 km

4.1.3 Table 20.5 provides a summary of stage 1 and stage 2 of the inter-project CEA. As such the table provides details of the 'other developments' listed in Table 20.4 and identifies which of the topic-specific ZOIs the 'other development' falls within and evaluates if the 'other development' should be taken forward to stage 3 and 4 of the assessment.

4.1.4 The study area for Socio Economics covers a much wider area than most other assessment topics. For the purpose of the Inter-project effect the study area for the Socio Economic assessment typically extends to the administrative areas of Anglesey and Gwynedd. Therefore all the 'other developments' listed in Table 20.4 have progressed to stage 2 of the CEA. For this reason, Stage 2 of the Socio Economics CEA is reported separately in Table 20.6.

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
Wylfa Newydd Power Station	Landscape	Yes	Potential overlap between both the construction and operational phases.	<p>Shared receptors:</p> <ul style="list-style-type: none"> <li>• Isle of Anglesey Area of Outstanding Natural Beauty (AONB);</li> <li>• North Anglesey Heritage Coast;</li> <li>• Special Landscape Area (SLA) 12 Parciau Estatelands;</li> <li>• SLA 13 Parys Mountain &amp; Slopes;</li> <li>• SLA 14 Mynydd Mechell &amp; Surrounds;</li> <li>• Visual and Sensory Aspect Area (VSAA) YNSMNV008 North-west Drumlins (North) (corresponding Wylfa Newydd receptor: LLCA 1 North Drumlins LCA; LLCA 3 Cemaes Bay Hinterland; LLCA 5 Llanfechell Farmland; LLCA 6 Tregele; LLCA 7 A5025 Farmland; LLCA 8 Llanfairynghornwy; LLCA 10 Cefn Coch Lowland; LSCA 1 Cemlyn Bay; LSCA 2 Porth-y-pistyll; LSCA 4 Wylfa Head; LSCA 5 Outer Cemaes Bay; and LSCA 11 Hen Borth);</li> <li>• VSAA YNSMNV010 Drumlins with windfarms (corresponding Wylfa Newydd receptor: LLCA 12 Drumlins with Windfarms North)</li> <li>• VSAA YNSMNV011 North Coast Hinterland (corresponding Wylfa Newydd receptor: LLCA 13 North Coast Hinterland; LSCA 6 Inner Cemaes Bay; and LSCA 7 Porth Padrig);</li> <li>• VSAA YNSMNV036 Cemlyn (corresponding Wylfa Newydd receptor LSCA 1 Cemlyn Bay);</li> <li>• VSAA YNSMNV068 Cemaes (corresponding Wylfa Newydd receptor: LLCA 4 Cemaes; and LSCA 6 Inner Cemaes Bay);</li> <li>• VSAA YNSMNV069 Llanfechell (corresponding Wylfa Newydd receptor: LLCA 11 Llanfechell); and</li> <li>• VSAA YNSMNV086 Wylfa Power Station (corresponding Wylfa Newydd receptor: LLCA 2 Wylfa Landscape Setting; and LSCA 3 Wylfa Power Station).</li> </ul> <p>The on-site development of the Wylfa Newydd Power Station is large in scale and is considered likely to have significant cumulative effects with the Proposed Development. Taken forward to Stage 3/4.</p> <p>Construction and operational phase <b>negligible</b> effects have been concluded on the</p>	Yes (on site development only)

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
				<p>following landscape receptors within the Wylfa Newydd Power Station assessment:</p> <ul style="list-style-type: none"> <li>• SLA 12 Parciau Estatelands; and</li> <li>• SLA 13 Parys Mountain &amp; Slopes.</li> </ul> <p>Potential significant cumulative effects are therefore considered unlikely; hence these landscape receptors are not considered further in this assessment.</p> <p>Operational phase <b>negligible</b> effects have been concluded on the following additional landscape receptors within the Wylfa Newydd Power Station assessment, which are therefore not considered further:</p> <ul style="list-style-type: none"> <li>• Wylfa Newydd receptor: LLCA 11 Llanfechell (corresponding VSAA YNSMNVS069 Llanfechell); and</li> <li>• Wylfa Newydd receptor: LLCA 13 North Coast Hinterland (corresponding VSAA YNSMNVS011 North coast hinterland).</li> </ul> <p><b>Negligible</b> effects are predicted on the potential shared North Anglesey Heritage Coast and VSAA YNSMNVS036 Cemlyn (corresponding Wylfa Newydd receptor LSCA 1 Cemlyn Bay) during the operational phase of the Proposed Development therefore significant cumulative effects on these receptors during operation are considered unlikely.</p> <p>Due to the distance of the Wylfa Newydd Off-site Power Station Facilities (AECC, ESL &amp; MEEG) over 6.5 km, between the developments, the limited overlap in ZTV, and the scale of the Off-Site Power Station significant cumulative effects are unlikely, and so are not considered further.</p> <p>Due to distances and the scale of the proposals for the Park and Ride and Logistics Centre significant cumulative effects are also unlikely, and so are not considered further.</p> <p>Due to the scale of the proposals for the A5025 highway improvements significant cumulative effects are unlikely, and so are not considered further.</p>	
	Visual	Yes	Potential overlap between both the construction and operational phases.	<p>Shared receptors: communities of Tregle, Cemaes, Llanfairynghornwy and Llanfechell, users of the Wales Coast Path, users of local Public Rights of Ways (PRoWs), individual properties, users of National Cycle Route (NCR) 5 and NCR 566, receptors on the A5025 and accessing the trig point at Mynydd y Garn and</p>	Yes (on site development only)



**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
				<p>Parys Mountain.</p> <p>Many receptors were scoped out of the assessment of the development including some communities and road users, limiting the information available to those receptors very close to the site.</p> <p>This is a large scale development which is likely to have significant cumulative effects with the Proposed Development.</p> <p>As <b>negligible</b> effects on Llanfechell have been concluded in the Wylfa Newydd Power Station assessment potential significant cumulative effects are considered unlikely and therefore this receptor are not considered further in this assessment.</p> <p>Due to the distance of the Wylfa Newydd Off-site Power Station Facilities over 6.5 km, between the developments, the limited overlap in Zone of Theoretical Visibility (ZTV), and the scale of the Off Site Power Station significant cumulative effects are unlikely and so are not considered further.</p> <p>The A5025 would pass by both developments with a potential for sequential views of the Proposed Development and the Off Site Power Station Facilities, but due to the small scale of the Off Site Power Station Facilities and the <b>minor</b> effects identified from the Proposed Development for users of the A5025 significant cumulative effects are unlikely and so are not considered further.</p> <p>Due to separation distances and the relatively small scale of the proposals for the associated development significant cumulative effects are unlikely and so are not considered further.</p> <p>Due to the relatively small scale of the proposals for the highway improvements significant cumulative effects are unlikely and so are not considered further.</p>	
	Ecology and Nature Conservation	Yes	Potential overlap between both the construction and operational phases.	<p>Shared receptors: North Anglesey Marine candidate Special Area of Conservation (cSAC), Cemlyn Bay Site of Special Scientific Interest (SSSI), Tre'r Gof SSSI, Caeau Talwrn SSSI, ancient woodland, scrub, hedgerows, grassland, freshwater fish, terrestrial invertebrates, great crested newts, other amphibians, reptiles, marine mammals, brown hare, polecat, otter, water vole, red squirrel, bats, chough, ornithology (breeding birds and over-winter/passage birds).</p> <p>The Proposed Development would result in <b>negligible</b> effects on the North Anglesey Marine cSAC, Cemlyn Bay SSSI, Tre'r Gof SSSI, Caeau Talwrn SSSI, scrub, non-</p>	Yes for ancient woodland, freshwater fish, red squirrel in areas of high quality

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
				<p>Important Hedgerows, grassland, terrestrial invertebrates, great crested newts, other amphibians, reptiles in relation to poor quality habitat, marine mammals, bats, brown hare, polecat, otter, water vole, red squirrel in areas of poor quality habitat, chough, ornithology (breeding birds) during operation, maintenance and decommissioning and ornithology (over-winter/passage birds). In addition Wylfa Newydd Power Station further reported <b>negligible</b> effects on Important Hedgerows (none reported present) and reptiles.</p> <p>As <b>negligible</b> effects from the Proposed Development or Wylfa Newydd Power Station have been predicted at each of these shared receptors, potential significant cumulative effects are considered unlikely and therefore these receptors are not considered further in this assessment.</p> <p>In view of the timescale, location of this 'other development' and that the Proposed Development concludes that <b>minor</b> adverse effects are likely on ancient woodland, freshwater fish, red squirrel in areas of high quality habitat and ornithology (breeding birds) during construction there remains the potential for significant cumulative effects and these receptors have been taken forward in this assessment..</p>	habitat and breeding birds
	Historic Environment	Yes	Potential overlap between both the construction and operational phases.	<p>Shared receptors: Standing Stones Scheduled Monument (AN 030), Standing Stone 410 m North of Church Scheduled Monument (AN 080), Pen-y-Morwyd Round Barrow Scheduled Monument (AN 110), Llifad, Carreglefn Scheduled Monument (AN 079), Cemaes Mill Grade II Listed Building (LB 5344), Church of St Mechell Grade Listed II*Building and Rectory Grade Listed II Building (LB 5383, 5384), Llanfechell Conservation Area, Bryn Ddu Grade II Listed Building (LB 25171) and Church of St Peirio Grade II Listed Building (LB 5349).</p> <p>As <b>negligible</b> effects have been reported on the following shared receptors either by the Proposed Development or by the Wylfa Newydd Power Station assessment :Pen-y-Morwyd Round Barrow Scheduled Monument (AN 110), Llifad, Carreglefn Scheduled Monument (AN 079), Cemaes Mill Grade II Listed Building (LB 5344), Church of St Mechell Grade Listed II*Building and Rectory Grade Listed II Building (LB 5383, 5384), Llanfechell Conservation Area, Bryn Ddu Grade II Listed Building (LB 25171) and Church of St Peirio Grade II Listed Building (LB 5349) significant cumulative effects are considered unlikely therefore these receptors are not considered further in this assessment.</p> <p>There is the potential for cumulative effects on the Standing Stones Scheduled</p>	Yes (Standing Stones Scheduled Monument (AN 030) and Standing Stone 410 m North of Church Scheduled Monument (AN 080)

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
				Monument (AN 030) and Standing Stone 410 m North of Church Scheduled Monument (AN 080), to occur during construction and operation phases due to predicted changes in the settings of designated heritage assets and these receptors are taken forward to stage 3/4.	
	Geology Hydrogeology and Ground Conditions	Yes	Potential overlap between construction phases.	Shared receptors: groundwater and soil.  Potential to require dewatering during construction phase with subsequent short-term depletion of groundwater levels within localised aquifers and short-term change to soil quality.  <b>Negligible</b> effects have been predicted on the potential shared receptors by the Proposed Development therefore potential significant cumulative effects are considered unlikely and these receptors are not considered further in this assessment.	No
	Water Quality Resources and Flood Risk	Yes	Potential overlap between both the construction and operational phases.	Shared receptors: Wygyr Water Framework Directive (WFD) water body (GB110102059170) and Tre'r Gof SSSI.  Proposed activities associated with the Wylfa Newydd Power Station includes landscape mounding that would modify the surface water catchment of Tre'r Gof SSSI, with associated potential to affect water quality to the SSSI. Potential sources of sediment entrained runoff could have an effect on Tre'r Gof SSSI and the Afon Wygyr catchment. These have been identified by the developer as having the potential to result in significant effects associated with the Wylfa Newydd Power Station alone. The Proposed Development would also involve works within the surface water catchments of the Tre'r Gof SSSI and the Afon Wygyr. However,) the Proposed Development would only result in a <b>negligible</b> effect on both receptors. As such, the Proposed Development would not add to the magnitude of change relative to the effects associated with the Wylfa Newydd Power Station alone. There would therefore be no cumulative effects.	No
	Traffic and Transport	Yes	Potential overlap between both the construction phases.	Shared receptors: link 1, link 2, link 21.  Potential for cumulative effects on shared receptors to occur as a result of the respective construction programmes and associated vehicle movements.  As <b>negligible</b> effects have been reported by the Proposed Development for link 2, link 21 and for pedestrian delay, pedestrian amenity and driver delay on link 1	Yes – Link 1

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
				significant cumulative effects are considered unlikely therefore these receptors/ effects are not considered further in this assessment.	
	Air Quality	Yes	Potential overlap between both the construction and operational phases.	<p>Shared receptors: human health, ecological and construction dust receptors in Section A and road traffic emissions receptors on the approach to Section A via the A55 and A5025 (link 1, link 2 and link 21).</p> <p>The combined 2-way HGV construction flows associated with the Proposed Development and the Wylfa Newydd Power Station on the A55 and A5025 exceed the criteria to signify that air quality impacts should be quantified at sensitive locations adjacent to this road link.</p> <p>The implementation of dust control measures that are committed to in the Construction Environmental Management Plan (CEMP) (<b>Document 7.4</b>) for the Proposed Development should control impacts to the extent that effects are <b>negligible</b>. Such measures are standard practice on all well managed construction sites and are likely to be equally enforced on the other development construction site. Therefore significant cumulative effects are considered unlikely and dust receptors are not considered further in this assessment.</p>	Yes – road traffic emissions only
	Construction Noise and Vibration	Yes	Potential overlap between both the construction and operational phases.	<p>Shared receptors: circa 170 common receptors have been identified around Wylfa, Tregele and Llanfechell.</p> <p>1645 receptors have been identified within 250 m of common construction traffic routes.</p> <p>There are potential noise effects from the Proposed Development pylon construction, conductor stringing and dismantling works and vehicle movements on access tracks that could overlap with works at Wylfa Newydd Power Station. Works in this area are likely to be short-term.</p> <p>Effects from Wylfa Newydd Power Station are likely to be significant at common receptors as works are more intensive and for a longer duration. Therefore works from the Proposed Development could increase already significant effects and will therefore be taken to stage 3/4.</p> <p><b>Negligible</b> effects at 140 of the shared receptors have been concluded in the Proposed Development assessment therefore significant cumulative effects on these receptors are considered unlikely and these receptors are not considered further in</p>	Yes - other than 140 receptors

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
				<p>this assessment.</p> <p>Both developments require a substantial quantity of traffic along common traffic routes across Anglesey and Gwynedd.</p>	
	Operational Noise	Yes	Potential overlap between the construction/ operation of Wylfa Newydd (specifically the routine testing of backup generators) and the Proposed Development	<p>Shared receptors: receptors in close proximity to the Proposed Development in and around Tregele and to the west of Cemaes.</p> <p>No potentially significant or significant effects predicted at nearby receptors from the Proposed Development.</p> <p>The operational phase of the Proposed Development would not commence until the construction phase of Wylfa Newydd is complete. As such, there is no possibility of a cumulative effect between these phases.</p> <p>The assessment of Operational Noise is based on night time noise levels to ensure a worst-case, precautionary approach to assessment. It is unlikely that there would be any night time traffic related to the Wylfa Newydd Development under normal circumstances and therefore cumulative effects with the reported effects of the Proposed Development are not likely to occur. Increased daytime vehicle movements as a result of the operation of Wylfa Newydd may increase the traffic noise levels along public highways routes. Increased vehicular movements on the public highways may mask daytime noise from the OHL therefore resulting in a lesser perceived effect of operational noise from the Proposed Development during the daytime.</p> <p><b>Minor</b> Adverse effects are predicted at receptors to the west of the Wylfa Newydd Development Area (WNDA) due to the routine testing of backup generators. These receptors would fall outside of the study area for the Proposed Development.</p>	No



**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
	Agriculture	Yes	Potential overlap between both the construction and operational phases.	<p>Shared receptors: Best and Most Versatile (BMV) agricultural land (regional) and soil resource (shared receptor due to the spatial overlap of the two developments, resulting in a potential repeated disturbance to the same soils, whereas the agricultural land is assessed at the regional scale).</p> <p>Potential for cumulative effects on agricultural land to occur as a result of the potential permanent cumulative loss of BMV land exceeding 20 hectares (ha) and this receptor is therefore taken through to stage 3/4.</p> <p><b>Negligible</b> effects predicted on the potential shared soil receptor by the Proposed Development therefore there is no potential for significant cumulative effects.</p>	Yes – BMV only
Wylfa Nuclear Power Station Decommissioning	Landscape	Yes	Overlap between all phases of the Wylfa Nuclear Power Station Decommissioning and the construction and operation of the Proposed Development.	<p>Shared receptors: Anglesey AONB, North Anglesey Heritage Coast, VSAA YNSMNVS086 Wylfa power station, VSAA YNSMNVS008 North-west drumlins, and VSAA YNSMNVS035 North coast.</p> <p>There is potential for cumulative landscape effects on local landscape character (including the AONB) during Decommissioning, Care and Maintenance and final site clearance of the Wylfa Nuclear Power Station Decommissioning although following decommissioning it is likely there would be a positive effect from the removal of the built forms at Wylfa and therefore there would be no significant adverse cumulative effect. This aspect is therefore taken through to stage 3/4.</p> <p><b>Negligible</b> effects are predicted on the potential shared North Anglesey Heritage Coast or VSAA YNSMNVS035 North coast by the Proposed Development therefore significant cumulative effects are considered unlikely and this aspect is not considered further.</p>	Yes – for Anglesey AONB, VSAA YNSMNVS086 Wylfa power station, VSAA YNSMNVS008 North-west drumlins
	Visual	Yes	Overlap between all phases of the Wylfa Nuclear Power Station Decommissioning and the construction and operation of the Proposed Development.	<p>Shared receptors: communities of Tregle and Cemaes, users of the Wales Coast Path, users of local PROWs and receptors on the A5025.</p> <p>There is potential for cumulative visual effects on visual receptors during the care, maintenance and decommissioning of Wylfa Nuclear Power Station although these effects would be very limited in nature and following decommissioning it is likely there would be a positive effect from the removal of the built forms at Wylfa and therefore there would be no significant adverse cumulative effect. The final site clearance is due to be completed in 2026, which will be followed by a 85-105 year</p>	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
				Decommissioning Care and Maintenance period.	
	Ecology and Nature Conservation	Yes	Overlap between all phases of the Wylfa Nuclear Power Station Decommissioning and the construction and operation of the Proposed Development.	<p>Shared receptors: North Anglesey Marine cSAC, Cemlyn Bay SSSI, Tre'r Gof SSSI, reptiles, marine mammals, bats, chough and ornithology (breeding birds and over-winter/passage birds).</p> <p>The Proposed Development would result in <b>negligible</b> effects on the North Anglesey Marine cSAC, Cemlyn Bay SSSI, Tre'r Gof SSSI, reptiles in relation to poor quality habitat, marine mammals, bats, chough and ornithology (breeding birds during operation, maintenance and decommissioning and over-winter/passage birds). In addition, Wylfa Nuclear Power Station Decommissioning has further reported <b>negligible</b> effects on reptiles and breeding birds other than a gull colony. Breeding gulls are not identified as an ecological receptor for the Proposed Development.</p> <p>As <b>negligible</b> effects from the Proposed Development or Wylfa Nuclear Power Station Decommissioning have been predicted at each of the shared receptors potential significant cumulative effects are considered unlikely and therefore are not considered further.</p>	No
	Historic Environment	Yes	Overlap between all phases of the Wylfa Nuclear Power Station Decommissioning and the construction and operation of the Proposed Development.	Shared receptors: none.	No
	Water Quality Resources and Flood Risk	Yes	Overlap between all phases of the Wylfa Nuclear Power Station Decommissioning and the construction and operation of the Proposed Development.	<p>Shared receptors: Wygyr WFD water body (GB110102059170) and Tre'r Gof SSSI.</p> <p>The Wylfa Nuclear Power Station Decommissioning activities would be within the same catchment as the construction and operation activities of the Proposed Development. As <b>negligible</b> effects from the Proposed Development have been predicted at shared receptors potential significant cumulative effects are considered to be unlikely.</p>	No
	Traffic and Transport	Yes	Overlap between all phases of the Wylfa Nuclear Power Station Decommissioning and the construction and	<p>Shared receptors: link 1, link 2 and link 21.</p> <p>As decommissioning works had commenced when the traffic surveys were conducted, the decommissioning traffic is already included in the baseline (and</p>	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			operation of the Proposed Development.	therefore also the future baseline) traffic figures. As such, the effects of the two developments cannot be separately identified. As the assessment is based on a percentage increase over the baseline it is not therefore possible to identify the cumulative effects with this development.	
	Air Quality	Yes	Overlap between all phases of the Wylfa Nuclear Power Station Decommissioning and the construction and operation of the Proposed Development.	Shared receptors: road traffic emissions receptors (both human health and ecological) on the approach to Section A via the A55 and A5025 (link 1, link 2 and link 21).  The traffic associated with the 'other development' is included within the baseline and future baseline therefore the Proposed Development's assessment is inherently cumulative including this other development.	No
	Construction Noise and Vibration	Yes	Overlap between all phases of the Wylfa Nuclear Power Station Decommissioning and the construction and operation of the Proposed Development.	Shared receptors: approximately 110 receptors around Wylfa and Tregelle, and between Tregelle and Cemaes Bay. 1645 receptors have been identified within 250 m of common construction traffic routes.  There are potential noise effects from the Proposed Development pylon construction, conductor stringing and dismantling works and vehicle movements on access tracks that could overlap with the decommissioning of Wylfa Nuclear Power Station. Works in this area are likely to be short-term.  There are no receptors at which an effect greater than <b>negligible</b> would occur from both the Proposed Development and Wylfa Nuclear Power Station Decommissioning works. Therefore cumulative effects on these shared receptors are considered unlikely.  As decommissioning works had commenced when the traffic surveys were conducted, the decommissioning traffic noise is already included in the calculation of the baseline (and therefore also the future baseline) noise. As such the effects of the two developments together are not separately identifiable, as the construction noise assessment is based on the increase over the baseline.	No



**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
	Operational Noise	Yes	Overlap between all phases of the Wylfa Nuclear Power Station Decommissioning and the construction and operation of the Proposed Development.	<p>Shared receptors: receptors in close proximity to the Proposed Development in and around Tregle and to the west of Cemaes.</p> <p>No potentially significant or significant effects predicted at nearby receptors from the Proposed Development.</p> <p>The assessment of Operational Noise for the Proposed Development is based on night time noise and very low baseline sound levels to ensure a worst-case, precautionary approach to assessment. It is not anticipated that decommissioning activity would take place at night and as such, a cumulative effect during the night-time period is unlikely.</p> <p>During the day time, any effect due to the Proposed Development is likely to be <b>negligible</b> due to higher baseline sound levels and also the fact that absolute noise levels due to the Proposed Development would be low. Noise from decommissioning activity, increased traffic and vehicle movements may result in a cumulative effect at the nearest receptors during the daytime. However, as the absolute noise levels would be low, the contribution from the Proposed Development would be low, and therefore this is unlikely to result in an overall increased effect at receptors. Furthermore, increased vehicle movements on the public highways may mask daytime noise from the OHL therefore resulting in a lesser perceived effect of operational noise from the Proposed Development during the daytime.</p>	No
Penrhos Leisure Village	Visual	Yes	Overlap between the full build out of the sites and the Proposed Development's construction. The resort is anticipated to be completed in the summer of 2021. It is expected there would be an overlap between the operational phases of the developments.	<p>Shared receptors: communities of Llanfairynghornwy, Llanrhyddlad and Llanbabo &amp; Llŷn Alaw, trig points at Mynydd y Garn, users of the Wales Coast Path, and receptors on roads.</p> <p>Due to the distance, over 13 km, between the developments and the scale of the proposals at the Leisure Village significant cumulative effects are unlikely.</p> <p>The Wales Coast Path would pass by both developments with a potential for sequential views, but due to the relatively small scale of the development at Penrhos and the <b>minor</b> effects identified from the Proposed Development for users of the Wales Coast Path significant cumulative effects are unlikely.</p>	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
	Ecology	Yes	Overlap between the full build out of the sites and the Proposed Development's construction and also an overlap between the operational phases of the developments.	Shared receptors: none.	No
	Agriculture	Yes	Overlap between the full build out of the sites and the Proposed Development's construction and also an overlap between the operational phases of the developments.	Shared receptor: BMV agricultural land (assessed at the regional scale). Due to the size and scale of the development (200 hectares (ha) mixed use development) there is a potential for the loss of BMV agricultural land. However, from the Penrhos Leisure Village Development location plan, the Provisional 1:250,000 Agricultural Land Classification (ALC) indicates that the agricultural land at Penrhos is ALC grade 4, i.e. non-BMV. Therefore, there is no potential for a cumulative effect.  There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).	No
Anglesey Eco Park	Visual	Yes	The first phases of the Eco Park would be constructed by 2018 however full development would run to 2020/2021 therefore there is an overlap between the construction phases of this development and the Proposed Development. There would also be an overlap in the operational phases.	Shared receptors: communities of Llanfairynghornwy, Llanrhyddlad and Llanbabo & Llŷn Alaw, trig point at Mynydd y Garn, users of the Wales Coast Path and receptors on roads.  Due to the distance, over 14 km, between the developments it is considered that the potential for cumulative effects is limited. Although the proposed flue stack at the Eco Park would be 100 m high, the distance between this and the Proposed Development is such that significant cumulative effects are unlikely. It is possible that from some more elevated viewpoints, e.g. Mynydd y garn and Parys Mountain, both developments may be perceptible but due to the <b>negligible</b> effects of the Proposed Development on these receptors t significant cumulative effects are unlikely.  The Wales Coast Path would pass by both developments with a potential for sequential views, but as the Eco Park is located on a previously industrial site and due to the <b>minor</b> effects identified from the Proposed Development for users of the Wales Coast Path significant cumulative effects are unlikely.	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
	Ecology and Nature Conservation	Yes	The first phases of the Eco Park would be constructed by 2018 however full development would run to 2020/2021 therefore there is an overlap between the construction phases of this development and the Proposed Development. There would also be an overlap in the operational phases.	Shared receptor: Llyn Alaw SSSI.  As <b>negligible</b> effects from the Proposed Development have been predicted and <b>negligible</b> effects are reported from the 'other development' at this shared receptor potential significant cumulative effects are considered unlikely and therefore are not considered further.	No
	Agriculture	Yes	The first phases of the Eco Park would be constructed by 2018 however full development would run to 2020/2021 therefore there is an overlap between the construction phases of this development and the Proposed Development. There would also be an overlap in the operational phases.	Shared receptor: BMV agricultural land (regional).  From the Anglesey Eco Park Development planning boundary, the Provisional 1:250,000 ALC indicates that the land is ALC grade 4, i.e. non-BMV. Therefore, there is no potential for a cumulative effect.  There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
Parc Cybi	Visual	Yes	The spine road and a truck stop has been completed. The hotel would be completed prior to the construction of the Proposed Development. Other elements of the outline permission may be constructed at the same time as the Proposed Development (timescale currently unknown). There would also be an overlap in the operational phases.	<p>Shared receptors: communities of Llanfairynghornwy, Llanrhyddlad and Llanbabo &amp; Llŷn Alaw, trig point at Mynydd y Garn, the Wales Coast Path and receptors on roads.</p> <p>Due to the distance, over 14 km, between the developments and the scale of the Parc Cybi proposals along the waterfront significant cumulative effects are unlikely.</p> <p>The Wales Coast Path would pass by both developments with a potential for sequential views, but due to the scale of the development at Parc Cybi and the <b>minor</b> effects identified from the Proposed Development for users of the Wales Coast Path there significant cumulative effects are unlikely.</p>	No
	Agriculture	Yes	The spine road and a truck stop has been completed. The hotel would be completed prior to the construction of the Proposed Development. Other elements of the outline permission may be constructed at the same time as the Proposed Development (timescale currently unknown). There would also be an overlap in the operational phases.	<p>Shared receptor: BMV agricultural land (regional).</p> <p>Due to the size and scale of the Parc Cybi development (48.5 ha) there is a potential for cumulative effects.</p> <p>From the Parc Cybi Development location plan, the Provisional 1:250,000 ALC indicates that the land at Parc Cybi could potentially be ALC grade 3 or 4. Therefore the land has the potential to be BMV; and hence, there is a potential for significant cumulative effects.</p> <p>There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).</p>	Yes – BMV only
Rhyd-y-Groes Re-power	Landscape	Yes	Construction works have commenced and are expected to have been completed prior to the construction of the Proposed	Shared receptors: Anglesey AONB, Mynydd Mechell SLA, Parys Mountain SLA, North Anglesey Heritage Coast, the following VSAAs: YNSMNVS004 Mynydd Bodafon; YNSMNVS008 North-west Drumlins (North) and (South); YNSMNVS009 Mynydd Mechell; YNSMNVS010 Drumlins with Windfarms; YNSMNVS011 North Coast Hinterland; YNSMNVS012 Central Smooth Belt; YNSMNVS035 North Coast;	Yes – for some receptors

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			Development. There would be an overlap in the operational phases.	<p>YNSMNVS036 Cemlyn; YNSMNVS056 Llŷn Alaw; YNSMNVS068 Cemaes; YNSMNVS069 Llanfechell; YNSMNVS070 Llanerchymedd; YNSMNVS086 Wylfa Power Station and YNSMNVS087 Parys Mountain.</p> <p>The following potential shared receptors are predicted to experience <b>negligible</b> effects by the Proposed Development therefore significant cumulative effects are considered unlikely and these receptors are not considered further:</p> <ul style="list-style-type: none"> <li>• North Anglesey Heritage Coast;</li> <li>• Parys Mountain SLA;</li> <li>• VSAA YNSMNVS011 North Coast Hinterland;</li> <li>• VSAA YNSMNVS035 North Coast;</li> <li>• VSAA YNSMNVS036 Cemlyn;</li> <li>• VSAA YNSMNVS068 Cemaes;</li> <li>• VSAA YNSMNVS070 Llanerchymedd; and</li> <li>• VSAA YNSMNVS087 Parys Mountain.</li> </ul> <p>Effects on VSAA YNSMNVS056 Llŷn Alaw are anticipated to be <b>negligible</b> as a result of Rhyd-y-Groes Re-power therefore cumulative effects on this shared receptors are also considered unlikely to be significant.</p> <p>There is potential for cumulative landscape effects on the other shared receptors as follows, and these are taken forward to stage 3/4:</p> <ul style="list-style-type: none"> <li>• Anglesey AONB;</li> <li>• Mynydd Mechell SLA;</li> <li>• VSAA YNSMNVS004 Mynydd Bodafon;</li> <li>• VSAA YNSMNVS008 North-west Drumlins (North);</li> <li>• VSAA YNSMNVS008 North-west Drumlins (South);</li> <li>• VSAA YNSMNVS009 Mynydd Mechell;</li> <li>• VSAA YNSMNVS010 Drumlins with Windfarms;</li> <li>• VSAA YNSMNVS012 Central Smooth Belt; and</li> </ul>	



**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
				<ul style="list-style-type: none"> <li>VSAA YNSMNVS086 Wylfa Power Station.</li> </ul>	
	Visual	Yes	Construction works have commenced and are expected to have been completed prior to the construction of the Proposed Development. There would be an overlap in the operational phases.	<p>Shared receptors: communities of Llanbadrig, Cemaes, Llanfechell, users of the Wales Coast Path, NCR 566, trig points at Parys Mountain, Mynydd Eilian, Mynydd y Garn, receptors on the A5025.</p> <p>The repowering of Rhyd-y-Groes and the Proposed Development would be seen in combination for a number of visual receptors</p> <p>Therefore there is a potential for significant cumulative effects. As the Proposed Development would have <b>negligible</b> effects on Mynydd Eilian, Mynydd y Garn and Amlwch potential significant cumulative effects are considered unlikely and therefore these receptor are not considered further in this assessment.</p>	Yes - Llanbadrig, Cemaes, Llanfechell, Wales Coast Path, NCR 566, trig points at Parys Mountain, receptors on the A5025
	Ecology and Nature Conservation	Yes	Construction works have commenced and are expected to have been completed prior to the construction of the Proposed Development. There would be an overlap in the operational phases.	<p>Shared receptors: Cemlyn Bay SSSI, Llyn Alaw SSSI, non-ancient woodland, grassland, hedgerows, ponds, watercourses and drains, water vole, otter, bats, brown hare, great crested newt, reptiles, terrestrial invertebrates and ornithology (breeding and over winter/passage birds).</p> <p>Collision risk modelling undertaken in relation to the Rhyd-y-Groes Re-power project concluded collision mortality was probable, but not significant, for lapwing and curlew, but not relevant for any other species. Although both curlew and lapwing are potentially also vulnerable to collision with the OHL of the Proposed Development once operational, the potential for this impact to occur was assessed as very low and therefore a <b>negligible</b> effect. The reasons for this are the spatial distribution and small number of recorded flights of both species adjacent to and/or across the Proposed Development.</p> <p>The Proposed Development would result in <b>negligible</b> effects on all shared receptors with the exception of Important Hedgerows, reptiles in relation to good quality habitat (<b>minor</b> adverse) and ornithology (breeding birds) during construction (<b>minor</b> adverse). In addition, Rhyd-y-Groes Re-power reported <b>negligible</b> effects on all shared receptors with the exception of bats and ornithology (breeding birds).</p> <p>Where <b>negligible</b> effects from the Proposed Development or the 'other development' have been predicted on shared receptors potential significant</p>	Yes – breeding birds

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
				cumulative effects are considered unlikely and therefore are not considered further.  Therefore, only potential significant cumulative effects on the shared receptor of ornithology (breeding birds during construction) have been taken forward in this assessment.	
	Historic Environment	Yes	Construction works have commenced and are expected to have been completed prior to the construction of the Proposed Development. There would be an overlap in the operational phases.	<p>Shared receptors: Church of St Peirio Grade II Listed Building (LB 5349), Llifad, Carreglefn Scheduled Monument (AN 079), Standing Stone 410 m North of Church Scheduled Monument (AN 080), Pen-y-Morwyd Round Barrow Scheduled Monument (AN 110), Standing Stones Scheduled Monument (AN 030), Cemaes Mill Grade II Listed Building (LB 5344), Dovecote at Plas Bodewryd Grade II Listed Building (LB 16575) and the Church of St Mechell Grade Listed II*Building (LB 5383).</p> <p>The Church of St Peirio Grade II Listed Building (LB 5349), Cemaes Mill Grade II Listed Building (LB 5344), Dovecote at Plas Bodewryd Grade II Listed Building (LB 16575) and the Church of St Mechell Grade Listed II*Building (LB 5383) are predicted to experience <b>negligible</b> effects either by the Proposed Development therefore significant cumulative effects are considered unlikely and these receptors are not considered further.</p> <p>There is the potential for cumulative effects on Llifad, Carreglefn Scheduled Monument (AN 079), Standing Stone 410 m North of Church Scheduled Monument (AN 080), Pen-y-Morwyd Round Barrow Scheduled Monument (AN 110) and Standing Stones Scheduled Monument (AN 030) shared receptors to occur due to predicted changes in the settings of designated heritage assets.</p>	Yes - Llifad, Carreglefn Scheduled Monument (AN 079), Standing Stone 410 m North of Church Scheduled Monument (AN 080), Pen-y-Morwyd Round Barrow Scheduled Monument (AN 110) and Standing Stones Scheduled Monument (AN 030)
	Water Quality Resources and Flood Risk	Yes	Construction works have commenced and are expected to have been completed prior to the construction of the Proposed	<p>Shared receptor: Wygyr WFD water body (GB110102059170).</p> <p>The 'other development' is located within the same catchment as the Proposed Development. The construction phase is anticipated to have completed prior to construction of the Proposed Development and as such there are no potential</p>	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			Development. There would be an overlap in the operational phases.	cumulative effects from construction activities. During the operational phase, as <b>negligible</b> effects from the Proposed Development have been predicted to the shared receptor, significant cumulative effects are considered unlikely.	
	Agriculture	Yes	Construction works have commenced and are expected to have been completed prior to the construction of the Proposed Development. There would be an overlap in the operational phases.	Shared receptor: BMV agricultural land (regional).  The re-powering of an existing wind farm would result in no additional permanent loss of agricultural land within the site. Currently the land around the turbines remains in agricultural use (grazing) and this is reported as continuing after repowering. Therefore, there is no potential for cumulative effects.  There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).	No
Holyhead Waterfront Redevelopment	Visual	Yes	Construction programme is anticipated to last 7 years in its entirety, which is likely to occur on a phased basis, however, the start date is unknown. Therefore an overlap could occur in construction and operational phases.	Shared receptors: trig points, users of the Wales Coast Path and receptors on roads.  Due to the distance, over 14 km, between the developments and the scale of the proposals along the waterfront there significant cumulative effects are unlikely.  The Wales Coast Path would pass by both developments with a potential for sequential views, but due to the scale of the development and the <b>minor</b> effects identified from the Proposed Development for users of the Wales Coast Path significant cumulative effects are unlikely.	No
	Agriculture	Yes	Construction programme is anticipated to last 7 years in its entirety, which is likely to occur on a phased basis, however, the start date is unknown. Therefore an overlap could occur in construction and operational phases.	Shared receptor: BMV agricultural land (regional).  The size and scale of the Holyhead Waterfront Redevelopment suggest there is a potential for cumulative effects. From the Holyhead Waterfront Redevelopment location plan, the Provisional 1:250,000 ALC mapping indicates that the land is non-agricultural and the Welsh Government Predictive ALC tool (Ref 20.9), shows there is a low likelihood of permanent BMV land take as a result of the Holyhead Waterfront Redevelopment. Therefore, it is considered unlikely for a cumulative effect to occur.  There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).	No
Glyn Rhonwy Pumped	Visual	Yes	Construction is expected to	Shared receptors: communities of Pentir, Llanddaniel Fab and Penisa'r Waun.	No



**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
Storage			last four years with the development operational by 2019. However as construction does not appear to have started yet, it is assumed that there could be an overlap between construction and operational phases.	Due to the distance, over 6 km, between the developments significant cumulative effects for visual receptors are unlikely.	
	Ecology and Nature Conservation	Yes	Construction is expected to last four years with the development operational by 2019. However as construction does not appear to have started yet, it is assumed that there could be an overlap between construction and operational phases.	<p>Shared receptors: Afon Gwyrfa a Llyn Cwellyn SAC, Menai Strait and Conwy Bay SAC, semi-natural woodland, coniferous woodland, semi-improved/marshy grassland, acid grassland, dry heath/ acid grassland, marine habitats, marine species, otter reptiles, bats and breeding birds.</p> <p>The Proposed Development would result in <b>negligible</b> effects on the shared receptors of Afon Gwyrfa a Llyn Cwellyn SAC, Menai Strait and Conwy Bay SAC, semi-natural woodland, coniferous woodland, semi-improved/marshy grassland, marine habitats, marine species, otter and bats. In addition the Glyn Rhonwy Pumped Storage project further reported <b>negligible</b> effects on acid grassland. Where <b>negligible</b> effects from the Proposed Development or 'other development' have been predicted on shared receptors, potential significant cumulative effects are considered unlikely and therefore are not considered further.</p> <p>Therefore, potential significant cumulative effects on the shared receptors for dry heath/acid grassland, reptiles and ornithology (breeding birds) have been taken forward in this assessment are not considered further</p>	Yes for dry heath/acid grassland, reptiles and breeding birds
	Traffic and Transport	Yes	Construction is expected to last four years with the development operational by 2019. However as construction does not appear to have started yet, it is assumed that there could be an overlap between	<p>Shared receptors: link 18.</p> <p>Effects as a result of the Proposed Development are <b>negligible</b> for severance, pedestrian delay, pedestrian amenity, fear and intimidation and driver delay, therefore potential significant cumulative effects are considered unlikely.</p>	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			construction and operational phases.		
	Air Quality	Yes	Construction is expected to last four years with the development operational by 2019. However as construction does not appear to have started yet, it is assumed that there could be an overlap between construction and operational phases.	Shared receptors: road traffic emissions receptors on the approach to Section E via the A487 (link 18).  The combined 2-way HGV construction flows associated with the Proposed Development and the Glyn Rhonwy Pumped Storage on the A487 exceed the criteria to signify that air quality impacts should be quantified at sensitive locations adjacent to this road link.	Yes – vehicle emissions
	Construction Noise and Vibration	Yes	Construction is expected to last four years with the development operational by 2019. However as construction does not appear to have started yet, it is assumed that there could be an overlap between construction and operational phases.	Shared receptors: 177 receptors have been identified within 250 m of common construction traffic routes.  Both developments require a substantial quantity of construction traffic along common traffic routes in Gwynedd.  Predictions of the cumulative effect with the Proposed Development and Glyn Rhonwy Pumped Storage have indicated that effects would be <b>negligible</b> at all 177 shared receptors. Therefore cumulative effects on construction traffic routes shared receptors are considered unlikely and are not considered further in this assessment.	No
	Agriculture	Yes	Construction is expected to last four years with the development operational by 2019. However as construction does not appear to have started yet, it is assumed that there could be an overlap between construction and operational phases.	Shared receptor: BMV agricultural land (regional).  Due to the size and scale of the Glyn Rhonwy Pumped Storage development there is a potentially for cumulative effects from the loss BMV of agricultural land. From the Glyn Rhonwy Pumped Storage Development planning boundary, the Provisional 1:250,000 ALC indicates that the land is ALC grade 5 and non-agricultural, i.e. non-BMV. Therefore, there is no potential for a cumulative effect.  There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
Underground Grid Connection between Glyn Rhonwy Pumped Storage Development and Pentir Substation	Landscape	Yes	The connection is expected to take less than a year however as the start date is not currently known, it is assumed there could be overlap in the construction and operational phases.	Shared receptor: VSAA GWNDDVS006 Bethel (between Clynnog and Bangor) and VSAA GWNDDVS011 Waen-Pentir.  <b>Negligible</b> effects are predicted on the potential shared landscape receptor VSAA GWNDDVS011 Waen-Pentir by the Proposed Development therefore there significant cumulative effects are considered unlikely.  There would be a potential for a cumulative effect on VSAA GWNDDVS006 Bethel (between Clynnog and Bangor).	Yes - VSAA GWNDDVS006 Bethel
	Visual	Yes	The connection is expected to take less than a year however as the start date is not currently known, it is assumed there could be overlap in the construction and operational phases.	Shared receptors: communities including Pentir and Rhiwlas, individual properties, users of local PRowS and receptors on the road network.  There are potential cumulative visual effects during construction, if both developments are undertaken at the same time, where construction works for the Pentir Substation Extension and the cables would be visible for receptors moving about the communities and from Rhiwlas where there would be views down onto the works. There is a therefore potential for significant cumulative effects.  During operation there would be no cumulative effects as the cables would be underground and land reinstated.	Yes - Construction only
	Ecology and Nature Conservation	Yes	The connection is expected to take less than a year however as the start date is not currently known, it is assumed there could be overlap in the construction and operational phases.	Shared receptors: grassland, otter and breeding birds.  The Proposed Development is expected to have <b>negligible</b> effects during construction, operation, maintenance and decommissioning on the potential shared receptors of grassland and otter. Where <b>negligible</b> effects from the Proposed Development or the 'other development' have been predicted on shared receptors, potential significant cumulative effects are considered unlikely and therefore are not considered further.  Therefore, only potential significant cumulative effects on the shared receptor of ornithology (breeding birds) have been taken forward in this assessment.	Yes – breeding birds
	Historic Environment	Yes	The connection is expected to take less than a year however as the start date is not currently known, it is assumed there could be	Shared receptor: Dinorwig Landscape of Outstanding Historic Interest.  There would be a potential for a cumulative effect on the Dinorwig Landscape of Outstanding Historic Interest.	Yes - Dinorwig Landscape of Outstanding Historic

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			overlap in the construction and operational phases.		Interest
	Geology Hydrogeology and Ground Conditions	Yes	The connection is expected to take less than a year however as the start date is not currently known, it is assumed there could be overlap in the construction phases.	Shared receptors: groundwater and soil.  There is the potential to require dewatering during construction phase with subsequent short-term depletion of groundwater levels within localised aquifers and short-term change to soil quality.  <b>Negligible</b> effects are predicted on the potential shared receptors as a result of the Proposed Development therefore significant cumulative effects are unlikely.	No
	Water Quality Resources and Flood Risk	Yes	The connection is expected to take less than a year however as the start date is not currently known, it is assumed there could be overlap in the construction and operational phases.	Shared receptors: Cegin WFD water body (GB11065058540) and Nant y Garth (GB110065058490).  The construction and operation activities associated with the connection would be partially within the same catchments as the Proposed Development. The construction of the Proposed Development is anticipated to result in a <b>negligible</b> effect on the Cegin waterbody, and as such, significant cumulative effect on the Cegin are considered unlikely. Construction of the Proposed Development is anticipated to result in a <b>minor</b> effect on the Nant y Garth water body. Given the scale and nature of the 'other development', which involves trenching alongside existing highways, there is not anticipated to be any potential for a significant cumulative effect on the Nant y Garth.	No
	Traffic and Transport	Yes	The connection is expected to take less than a year however as the start date is not currently known, it is assumed there could be overlap in the construction and operational phases.	Shared receptors: link 18.  Effects as a result of the Proposed Development are <b>negligible</b> for severance, pedestrian delay, pedestrian amenity, fear and intimidation and driver delay, therefore potential significant cumulative effects are considered unlikely.	No
	Air Quality	Yes	The connection is expected to take less than a year however as the start date is not currently known, it is	Shared receptors: road traffic emissions receptors on the approach to Section E via the A487 (link 18), and dust sensitive receptors located within 350 m of both the Proposed Development and the 'other development' construction site boundary, and/or within 50 m of a road used by construction traffic that is within 500 m of the	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			assumed there could be overlap in the construction and operational phases.	Order Limits and construction site access/egress point.  Limited vehicle movements associated with the 'other development'. The effects of the Proposed Development on receptors near to link 18 are <b>negligible</b> and therefore significant cumulative effects are unlikely to occur.  The implementation of dust control measures that are committed to in the CEMP ( <b>Document 7.4</b> ) for the Proposed Development should control impacts to the extent that effects are <b>negligible</b> . Such measures are standard practice on all well managed construction sites and are likely to be equally enforced on the other development construction site. Therefore significant cumulative effects are unlikely to occur.	
	Construction Noise and Vibration	Yes	The connection is expected to take less than a year however as the start date is not currently known, it is assumed there could be overlap in the construction phases.	Shared receptors: approximately eleven receptors around Pentir Construction Compound and Pentir Substation Construction Compound.  The Proposed Development has predicted <b>negligible</b> effects at four residential receptors, one caravan and one restaurant/cafe/tertia, which are shared receptors therefore cumulative effects on these shared receptors are considered unlikely.	Yes – 5 receptors
	Operational Noise	Yes	The connection is expected to take less than a year however as the start date is not currently known, it is assumed there would be an overlap in the construction phase with the operational phase of the Proposed Development	Shared receptors: receptors within close proximity to Pentir Substation.  No potentially significant or significant effects predicted at nearby receptors from the Proposed Development. All shared receptors are exposed to a <b>minor</b> or <b>negligible</b> effect from the Proposed Development.  Construction of a trench for underground cables is likely to be of short duration in any particular location and based on professional experience of similar schemes it is considered likely that the effects, when assessed, would be <b>negligible</b> . Therefore cumulative effects if construction of this development occurred during operation of the Proposed Development are unlikely.	No
	Agriculture	Yes	The connection is expected to take less than a year however as the start date is not currently known, it is assumed there could be	Shared receptor: soil resource (shared receptor due to the spatial overlap of the two developments, resulting in a potential repeated disturbance to the same soils).  The Underground Grid Connection would be expected to apply control measures to ensure that the disturbance and loss of soil resources would be reduced to a level where it would be acceptable in planning terms. Furthermore, the nature and	No



**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			overlap in the construction and operational phases.	location of the development, with trenches predominantly within the verges of the adopted highway network, would limit the potential for agricultural soil disturbance. There is limited potential for physical overlap of the two working areas as the Proposed Development would be mainly routed through agricultural soils.  <b>Negligible</b> effects are predicted on the potential shared soil receptor by the Proposed Development, therefore there is no potential for significant cumulative effects.	
West Anglesey Demonstration Project	Visual	Yes	Marine and planning consent is not currently in place. Therefore timescales are unknown.	Shared receptors: users of the Wales Coast Path.  Due to the distance, over 11 km, between the developments it is unlikely there would be significant cumulative visual effects although the exact locations of the onshore works are unknown at this stage.	No
	Agriculture	Yes	Marine and planning consent is not currently in place. Therefore timescales are unknown.	Shared receptor: BMV agricultural land (regional).  The West Anglesey Demonstration Project documentation identifies that the land is non-agricultural, however; the pastoral land use and surrounding geographical location (ALC Grade 4) suggests that the agricultural land is non-BMV.  There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).	No
A487 Caernarfon to Bontnewydd Bypass	Landscape	Yes	Overlap between construction phases in 2020 to 2021 and the operational phases.	Shared receptors: VSAA GWNDDVS006 Bethel (between Clynog and Bangor).  The A487 Caernarfon to Bontnewydd Bypass ES reported some localised <b>minor</b> and <b>moderate</b> adverse effects on landscape character. It is therefore considered that there may be potential for cumulative landscape effects.	Yes - VSAA GWNDDVS006 Bethel (between Clynog and Bangor)
	Visual	Yes	Overlap between construction phases in 2020 to 2021 and the operational phases.	Shared receptors: community of Llanddaniel Fab and users of the Wales Coast Path.  Due to the distance, over 4 km, between the developments there would be limited potential for cumulative effects for visual receptors.  The only cumulative effects would be for those receptors that are transient, travelling past both developments and viewing them in succession. This includes receptors on the road and footpath networks. Due to the topography and vegetation there is	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
				<p>unlikely to be views in combination for receptors.</p> <p>The Wales Coast Path would pass by both developments with a potential for sequential views, but due to the scale of the development and the <b>minor</b> effects identified from the Proposed Development for users of the Wales Coast Path there is significant cumulative effects are unlikely.</p> <p>From Llanddaniel Fab, views of the bypass are distant and effects not significant. As the scale of effects from the Proposed Development are localised during construction and <b>minor</b> in operation it is unlikely there would significant cumulative effects.</p>	
	Traffic and Transport	Yes	Overlap between construction phases in 2020 to 2021 and the operational phases.	<p>Shared receptors: link 18.</p> <p>Effects as a result of the Proposed Development are <b>negligible</b> for severance, pedestrian delay, pedestrian amenity, fear and intimidation and driver delay, therefore potential significant cumulative effects are considered unlikely.</p>	No
	Air Quality	Yes	Overlap between construction phases in 2020 to 2021 and the operational phases.	<p>Shared receptors: road traffic emissions receptors on the approach to Section F via the A487 (link 18).</p> <p><b>Negligible</b> impacts predicted at receptors located adjacent to link 18 and connected links from the Proposed Development, therefore significant cumulative effects are unlikely.</p>	No
	Construction Noise and Vibration	Yes	Overlap between construction phases in 2020 to 2021 and the operational phases.	<p>Shared receptors: receptors along common construction traffic routes.</p> <p>Effects on common receptors as a result of the Proposed Development are <b>negligible</b>. Therefore potential significant cumulative effects are considered unlikely.</p>	No
	Agriculture	Yes	Overlap between construction phases in 2020 to 2021 and the operational phases.	<p>Shared receptor: BMV agricultural land (regional).</p> <p>The bypass assessment reported the loss of agricultural land as a potential environmental effect; however it did not specify the area of necessary land take or area of BMV loss. From the development's location, the Provisional 1:250,000 ALC indicates that the land is potentially ALC grade 3 or 4 and therefore there is potential for loss of BMV agricultural land and therefore cumulative effect.</p> <p>There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).</p>	Yes - BMV

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
Menai Science Park	Landscape	Yes	The first phase of the development would be completed prior to the construction phase of the Proposed Development however the remainder of the development would take approximately 10 years to complete (more detailed timescale currently unknown) therefore is likely to overlap with both the construction and operation phases of the proposed development.	Shared receptors: Following VSAs: YNSMNV017 Eastern smooth belt; YNSMNV018 South-west ridges; YNSMNV078 Gaerwen and YNSMNV091 A55 corridor.  <b>Negligible</b> effects are predicted on the potential shared landscape receptor YNSMNV078 Gaerwen by the Proposed Development therefore significant cumulative effects are considered unlikely. A Planning Committee Report dated 13.05.15 states that an LVIA was submitted as part of the outline planning application and that this noted <b>moderate</b> landscape effects within and close to the site but that these do not extend to the wider area.	Yes - YNSMNV017 Eastern smooth belt; YNSMNV018 South-west ridges; and YNSMNV091 A55 corridor.
	Visual	Yes	The first phase of the development would be completed prior to the construction phase of the Proposed Development however the remainder of the development would take approximately 10 years to complete (more detailed timescale currently unknown) therefore is likely to overlap with both the construction and operation phases of the proposed development.	Shared receptors: communities of Gaerwen, users of local PRoWs and receptors on roads including the A55.  No EIA was undertaken for the Science Park so the significance of effects is unknown although it is likely that some properties on the edge of Gaerwen would be affected by the development. As the effects from the Proposed Development are limited due to filtering vegetation there is little potential for cumulative effects for visual receptors not already affected by the construction of the first phase of the Science Park. Therefore significant cumulative effects are unlikely.	No
	Ecology and Nature Conservation	Yes	The first phase of the development would be completed prior to the construction phase of the Proposed Development	Shared receptors: hedgerows, standing water, scattered trees, buildings and potential for bats and breeding birds including barn owl.  The Proposed Development would result in <b>negligible</b> effects on all shared receptors with the exception of Important Hedgerows and breeding birds during	Yes – Important Hedgerows and breeding birds during



**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			however the remainder of the development would take approximately 10 years to complete (more detailed timescale currently unknown) therefore is likely to overlap with both the construction and operation phases of the proposed development.	construction ( <b>minor</b> adverse). Where <b>negligible</b> effects from the Proposed Development have been predicted on shared receptors, potential significant cumulative effects are considered unlikely and are not considered further.  Therefore, the only potential significant cumulative effects are on the shared receptors of Important Hedgerows and ornithology (breeding birds during construction) which have therefore been taken forward in this assessment.	construction
	Historic Environment	Yes	The first phase of the development would be completed prior to the construction phase of the Proposed Development however the remainder of the development would take approximately 10 years to complete (more detailed timescale currently unknown) therefore is likely to overlap with both the construction and operation phases of the proposed development.	Shared receptors: none.	No
	Water Quality Resources and Flood Risk	Yes	The first phase of the development would be completed prior to the construction phase of the Proposed Development however the remainder of the development would take approximately 10 years to complete (more detailed timescale currently unknown)	Shared receptor: Braint Lower WFD water body (GB110102058660).  The 'other development' would be within the same catchment as the construction and operation activities of the Proposed Development. As <b>negligible</b> effects from the Proposed Development have been predicted at shared receptors potential significant cumulative effects are considered unlikely.	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			therefore is likely to overlap with both the construction and operation phases of the proposed development.		
	Traffic and Transport	Yes	The first phase of the development would be completed prior to the construction phase of the Proposed Development however the remainder of the development would take approximately 10 years to complete (more detailed timescale currently unknown) therefore is likely to overlap with both the construction and operation phases of the proposed development.	Shared receptor: link 12. Construction effects as a result of the Proposed Development are <b>negligible</b> , therefore potential significant cumulative effects are considered unlikely.	No
	Air Quality	Yes	The first phase of the development would be completed prior to the construction phase of the Proposed Development however the remainder of the development would take approximately 10 years to complete (more detailed timescale currently unknown) therefore is likely to overlap with both the construction and operation phases of the proposed development.	Shared receptors: road traffic emissions receptors on the approach to Section E, via the A55 (link 21), A5 (link 13) and the A5152 (link 12). The operational traffic associated with the 'other development' is included within the future baseline therefore the Proposed Developments assessment is inherently cumulative including this other development.	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
	Construction Noise and Vibration	Yes	The first phase of the development would be completed prior to the construction phase of the Proposed Development however the remainder of the development would take approximately 10 years to complete (more detailed timescale currently unknown) therefore is likely to overlap with both the construction and operation phases of the proposed development.	Shared receptors: three receptors to the east of Gaerwen.  <b>Negligible</b> effects are predicted on the potential shared receptors by the Proposed Development therefore significant cumulative effects are unlikely.	No
	Agriculture	Yes	The first phase of the development would be completed prior to the construction phase of the Proposed Development however the remainder of the development would take approximately 10 years to complete (more detailed timescale currently unknown) therefore is likely to overlap with construction phase of the Proposed Development.	Shared receptor: BMV agricultural land (regional).  From the Menai Science Park location plan, the Provisional 1:250,000 ALC mapping indicates that all land within the site is Grade 3 and hence has the potential to be BMV. Therefore, there is potential for a cumulative effect to occur.  There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).	Yes - BMV
Third Menai Crossing	Landscape	Yes	Potential for the construction phases to overlap (construction timescale currently unknown anticipated	Potential shared receptors: Anglesey AONB, Menai SLA, tree cover (as a landscape element) and the following VSAs: YNSMNV026 Menai Straits slopes – south; YNSMNV062 Llanfair Pwllgwyngyll; and GWNDDVS005 Vaynol Estate.  As <b>negligible</b> effects from the Proposed Development have been predicted on the	Yes – tree cover

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			to be 2020/2021 to 2022/2023). The operations phases would also overlap.	southern part of the AONB (described as 'AONB South Coast'), Menai SLA, YNSMNV026 Menai Straits slopes – south, YNSMNV062 Llanfair Pwllgwyngyll and GWNDDVS005 Vaynol Estate significant cumulative effects are considered unlikely and are not considered further in the assessment.  There is however potential for significant cumulative effects on tree cover during construction.	
	Visual	Yes	Potential for the construction phases to overlap (construction timescale currently unknown anticipated to be 2020/2021 to 2022/2023). The operations phases would also overlap.	Shared receptors: users of the Wales Coast Path and receptors on the A55.  Due to the landform around the Menai Strait and the limited views to the wider landscape there would be limited scope for cumulative effects from a 3rd Menai Crossing and the Proposed Development. There could be sequential effects for receptors on the A55 and Wales Coast Path but due to the distances between the two developments and the <b>minor</b> effects for these receptors from the Proposed Development these cumulative effects are unlikely to be significant.	No
	Ecology and Nature Conservation	Yes	Potential for the construction phases to overlap (construction timescale currently unknown anticipated to be 2020/2021 to 2022/2023). The operations phases would also overlap.	Potential shared receptors: Menai Strait and Conwy Bay SAC, Afon Gwyrfaï a Llyn Cwellyn SAC, Pen Llyn a`r Sarnau/Lleyn Peninsula and the Sarnau SAC, North Anglesey Marine cSAC, West Wales Marine cSAC, Cardigan Bay SAC, Coedydd Afon Menai SSSI, Glannau Porthaethwy SSSI, ancient woodland, non-ancient woodland, grassland, marine habitats, marine ecology (marine mammals and Atlantic salmon), freshwater fish, red squirrel, otter, bats and ornithology.  As <b>negligible</b> effects from the Proposed Development have been predicted on the Menai Strait and Conwy Bay SAC, Afon Gwyrfaï a Llyn Cwellyn SAC, Pen Llyn a`r Sarnau/Lleyn Peninsula and the Sarnau SAC, North Anglesey Marine cSAC, West Wales Marine cSAC, Cardigan Bay SAC, Coedydd Afon Menai SSSI, Glannau Porthaethwy SSSI, non-ancient woodland, non-Important Hedgerows, grassland, marine habitats, marine ecology (marine mammals and Atlantic salmon but excluding other marine fish), red squirrel in areas of poor quality habitat, otter, bats and ornithology (breeding birds during operation and over-winter/passage birds) significant cumulative effects on these shared receptors are considered unlikely and therefore are not considered further.  Although detailed information is currently not publically available regarding the potential residual effects of the Third Menai Crossing on these shared receptors, there is considered to be the potential for significant cumulative effects on ancient	Yes - ancient woodland, Important Hedgerows, freshwater fish, red squirrel in areas of high quality habitat, breeding birds and other marine fish during construction

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
				woodland, Important Hedgerows, freshwater fish, red squirrel in areas of high quality habitat, ornithology (breeding birds) other marine fish during construction.	
	Historic Environment	Yes	Potential for the construction phases to overlap (construction timescale currently unknown anticipated to be 2020/2021 to 2022/2023). The operations phases would also overlap.	<p>Potential shared receptors: Britannia Bridge, Plas Newydd and Vaynol.</p> <p>The Welsh Government has consulted on options for the alignment of a third Menai Crossing, all of which would involve a bridge located alongside or near to the existing Britannia Bridge. The preferred option is not known, though each of the options could affect the settings of designated assets within and alongside the Menai Strait. In particular, it could affect the Britannia Bridge itself, as well as the registered parks and gardens of Plas Newydd and Vaynol, and the assets associated with these.</p> <p>There would be no effect on the Britannia Bridge as a result of the Proposed Development therefore significant cumulative effects on this receptor are not possible and are not considered further in the assessment.</p>	Yes - Plas Newydd and Vaynol
	Water Quality Resources and Flood Risk	Yes	Potential for the construction phases to overlap (construction timescale currently unknown anticipated to be 2020/2021 to 2022/2023). The operations phases would also overlap.	<p>Potential shared receptors: Braint Upper and Nant y Garth WFD river water bodies (GB110102058690 and GB110065058490)</p> <p>Some of the options for the crossing route (as described in <b>Document 5.20.2.2</b>) could include alterations to junctions that are within the Braint Upper and Nant y Garth river water body catchments.</p> <p>Minor construction related effects could occur to the Nant y Garth and Braint Upper WFD river water bodies as a result of the Proposed Development. Given the potential coincidence of construction activities for the two projects within those water bodies, there is potential for cumulative effects.</p>	Yes - Nant y Garth and Braint Upper WFD river water bodies
	Traffic and Transport	Yes	Potential for the construction phases to overlap (construction timescale currently unknown anticipated to be 2020/2021 to 2022/2023). The operations phases would also overlap.	<p>Potential shared receptors: link 21</p> <p>Effects as a result of the Proposed Development are <b>negligible</b> for severance, pedestrian delay, pedestrian amenity, fear and intimidation and driver delay, therefore potential significant cumulative effects are considered unlikely.</p>	No
	Air Quality	Yes	Potential for the construction	Potential shared receptors: road traffic emissions receptors human health and	No



**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			phases to overlap (construction timescale currently unknown anticipated to be 2020/2021 to 2022/2023). The operations phases would also overlap.	ecology) on the approach to and through Section F via the A55 (link 21), and dust sensitive receptors located within 350 m of both the Proposed Development Order Limits and the other development construction site boundary, and/or within 50 m of a road used by construction traffic that is within 500 m of an Order Limits and construction site access/egress point.  <b>Negligible</b> impacts are predicted from road traffic emissions as a result of the Proposed Development at receptors locations adjacent to the A55, so significant cumulative effects are considered unlikely.  The implementation of dust control measures that are committed to in the CEMP ( <b>Document 7.4</b> ) for the Proposed Development should control impacts to the extent that effects are <b>negligible</b> . Such measures are standard practice on all well managed construction sites and are likely to be equally enforced on the other development construction site. Therefore significant cumulative effects are considered unlikely.	
	Construction Noise and Vibration	Yes	Potential for the construction phases to overlap (construction timescale currently unknown anticipated to be 2020/2021 to 2022/2023). The operations phases would also overlap.	Shared receptors: receptors along common construction traffic routes. Effects on common receptors as a result of the Proposed Development are <b>negligible</b> . Therefore potential significant cumulative effects are considered unlikely	No
	Agriculture	Yes	Potential for the construction phases to overlap (construction timescale currently unknown anticipated to be 2020/2021 to 2022/2023). The operations phases would also overlap.	Potential shared receptor: BMV agricultural land (regional). Due to the size and scale of the Third Menai Crossing there is a potential for a cumulative effect. Considering the Proposed Alignment Options for the crossing the Provisional 1:250,000 ALC indicates that all land is Grade 3 and hence has the potential to be BMV and result in cumulative effects.  There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).	Yes - BMV

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
A55 – Junction 15 & Junction 16 Improvement	Traffic and Transport	Yes	Potential for the construction phases to overlap (timescales currently unknown but expected to be between autumn 2020 to autumn 2022). The operational phases would also overlap.	Shared receptors: none.	No
	Air Quality	Yes	Potential for the construction phases to overlap (timescales currently unknown but expected to be between autumn 2020 to autumn 2022). The operational phases would also overlap.	Shared receptors: none.	No
	Agriculture	Yes	Potential for the construction phases to overlap (timescales currently unknown but expected to be between autumn 2020 to autumn 2022). The operational phases would also overlap.	Shared receptor: BMV agricultural land (regional). Due to the size and scale of the A55 – Junction 15 & Junction 16 Improvement development there is a potential for a cumulative effect. However, the Provisional 1:250,000 ALC indicates that all land within the site is Grade 4 and hence not BMV therefore cumulative effects are considered to be unlikely. There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).	No
A55 Abergwyngregyn to Tai'r Meibion Improvement	Visual	Yes	Overlap between construction phases in 2020 and the operational phases.	Shared receptors: users of the Wales Coast Path and receptors on the A55. Due to the distance, over 7 km, between the developments and the limited effects on these receptors from the Proposed Development significant cumulative effects for visual receptors are unlikely.	No
	Traffic and Transport	Yes	Potential for the construction phases to overlap (timescales currently unknown but expected to be between	Shared receptors: none.	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			autumn 2020 to autumn 2022). The operational phases would also overlap.		
	Air Quality	Yes	Potential for the construction phases to overlap (timescales currently unknown but expected to be between autumn 2020 to autumn 2022). The operational phases would also overlap.	Shared receptors: none.	No
	Agriculture	Yes	Overlap between construction phases in 2020 and the operational phases.	Shared receptor: BMV agricultural land (regional). Due to the size and scale of the A55 Abergwyngregyn to Tai'r Meibion development there is a potential for a cumulative effect. The A55 Abergwyngregyn to Tai'r Meibion project documentation also identifies the dominant land use affected as pastoral agriculture, comprising Sub-grade 3a, 3b and Grade 4 farmland, based mainly around beef and sheep farming and considered to be of 'local significance'. There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).	Yes – BMV
Nant y Garth Landfill Site	Landscape	Yes	Overlap of operation of landfill (time-limited to the end of July 2021) and construction of the Proposed Development.	Shared receptor: GWNDDVS006 Bethel (between Clynog and Bangor) and Tree Cover. Nant y Garth Landfill Site proposals comprise minor amendments to restoration conditions to allow ease of reinstatement and create a landform to reinstate woodland. This would not have an adverse effect on landscape character or elements and therefore would not give rise to any significant adverse cumulative effects with the Proposed Development.	No
	Visual	Yes	Overlap of operation of landfill (time-limited to the end of July 2021) and construction of the Proposed Development.	Shared receptors: community of Pentir and users of local PRow's. Nant y Garth Landfill Site proposals comprise minor amendments to restoration conditions to allow ease of reinstatement and create a landform to reinstate woodland. This would not have an adverse effect on visual amenity and therefore would not give rise to any cumulative effects with the Proposed Development.	No



**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
	Ecology and Nature Conservation	Yes	Overlap of operation of landfill (time-limited to the end of July 2021) and construction of the Proposed Development.	Shared receptors: woodland and badger.  Nant y Garth Landfill Site proposals comprise minor amendments to restoration conditions to allow ease of reinstatement and create a landform to reinstate woodland. As <b>negligible</b> effects from the Proposed Development have been predicted on woodland and badger, significant cumulative effects on this shared receptor are considered unlikely and therefore are not considered further.	No
	Historic Environment	Yes	Overlap of operation of landfill (time-limited to the end of July 2021) and construction of the Proposed Development.	Shared receptors: Dinorwig Landscape of Outstanding Historic Interest.  Nant y Garth Landfill Site is within the Dinorwig Landscape of Outstanding Historic Interest and so there would be potential for cumulative effects with elements of the Proposed Development also located within this landscape. However, Nant y Garth Landfill Site development comprise minor amendments to restoration conditions to allow ease of reinstatement and create a landform to reinstate woodland. This would not have an adverse effect on the historic character and so would not give rise to any cumulative effects.	No
	Geology Hydrogeology and Ground Conditions	Yes	Overlap of operation of landfill (time-limited to the end of July 2021) and construction of the Proposed Development.	Shared receptors: none.	No
	Water Quality Resources and Flood Risk	Yes	Overlap of operation of landfill (time-limited to the end of July 2021) and construction of the Proposed Development.	Shared receptor: Nant y Garth (GB110065058490).  Nant y Garth Landfill Site development is to re-configure the finished profile of the existing inert landfill site, within the limitations of the existing consent. As minor amendments to landform would be unlikely to have an effect on the Nant y Garth, or to change the effects compared to the originally consented landform, significant cumulative effects are unlikely.	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
	Traffic and Transport	Yes	Overlap of operation of landfill (time-limited to the end of July 2021) and construction of the Proposed Development.	Shared receptor: link 19.  Nant y Garth Landfill Site proposals comprise minor amendments to restoration conditions. The operational traffic of the site is included within the baseline and future baseline therefore the Proposed Developments assessment is inherently cumulative including this other development.	No
	Air Quality	Yes	Overlap of operation of landfill (time-limited to the end of July 2021) and construction of the Proposed Development.	Potential shared receptors: dust sensitive receptors located within 350 m of both the Proposed Development and the 'other development' site boundary, and/or within 50 m of a road used by construction traffic that is within 500 m of the Order Limits and site boundary access/egress point.  The implementation of dust control measures that are committed to in the CEMP ( <b>Document 7.4</b> ) for the Proposed Development should control impacts to the extent that effects are <b>negligible</b> . Dust control measures are also standard practice on all well managed waste sites and are likely to be equally enforced on the 'other development' site. Therefore significant cumulative effects are considered unlikely.  Nant y Garth Landfill Site proposals comprise minor amendments to restoration conditions. The operational traffic of the site is included within the baseline and future baseline therefore the Proposed Developments assessment is inherently cumulative including this other development.	No
	Construction Noise and Vibration	Yes	Overlap of operation of landfill (time-limited to the end of July 2021) and construction of the Proposed Development.	Shared receptors: fifteen receptors within 500 m of Nant-y-Garth that lie within the study area for the Proposed Development.  There are <b>moderate</b> residual effects from the Proposed Development due to pylon construction works at some of the shared receptors, as well as <b>minor</b> effects from works within the Tŷ Fodol Construction Compound, pylon construction works and traffic on access tracks.  The Nant-y-Garth Landfill Site reported that the new proposals would be unlikely to result in any change to the noise levels the nearest receptors. Therefore significant cumulative effects are unlikely.	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
	Operational Noise	Yes	Overlap of operation of landfill (time-limited to the end of July 2021) and construction of the Proposed Development.	Shared receptors: Hafan y Wennol R5/07236, Tyn y Coed R5/07260, Llys y Gwynt R5/07307, Garth Bach R5/07284, Lleifior R5/07322 and Garth Fawr Farm R5/07524.  It is understood that the application to deposit further waste at Nant Y Garth is restricted within the limitations of the existing consent, including noise limitations. It is considered that future operations at Nant Y Garth landfill site would be similar to existing operations, and therefore the existing baseline would not change and it is therefore unlikely that there would be any cumulative operational noise effects.	No
Amlwch Liquid Natural Gas (LNG)	Visual	Yes	The construction phase may coincide with that of the Proposed Development depending on planning consent (construction start date currently unknown). Likely to be an overlap in operation phases.	Shared receptors: trig points (Mynydd Eilian and Parys Mountain) and users of the Wales Coast Path.  From the trig point at Mynydd Eilian both developments may be perceptible viewed in succession but both are at such a distance that effects would not be significant.  From the trig point at Parys Mountain, the two developments would be seen in succession, the Proposed Development to the south and west and the LNG development to the north. Effects from the Proposed Development are <b>negligible</b> and therefore it is unlikely there would be significant cumulative effects.  There is potential for sequential views from the Wales Coast Path as receptors travel along the north coast of Anglesey. Since views along the coast path tend to be focussed along the coast and already pass by works at Amlwch and the existing 400 kV OHL, cumulative effects are unlikely to be significant.	No
	Ecology and Nature Conservation	Yes	The construction phase may coincide with that of the Proposed Development depending on planning consent (construction start date currently unknown). Likely to be an overlap in operation phases.	Shared receptors: Cemlyn Bay SSSI, marine habitats, intertidal habitats, marine ecology (marine mammals and Atlantic salmon) and bats.  As either the Proposed Development or 'other development' have reported <b>negligible</b> effects on all of the shared receptors significant cumulative effects on are considered unlikely and therefore are not considered further.	No
	Agriculture	Yes	The construction phase may coincide with that of the Proposed Development	Shared receptor: BMV agricultural land (regional).  Due to the size and scale of the Amlwch Liquid Natural Gas (LNG) development there is a potential for a cumulative effect. However, the Amlwch Liquid Natural Gas	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			depending on planning consent (construction start date currently unknown). Likely to be an overlap in operation phases.	(LNG) development would result in no BMV loss therefore, no cumulative effects are anticipated.  There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).	
Green Wire	Landscape	Yes	Timescales currently unknown. If connection in place as per the agreement (completed by end of 2020) there would be an overlap with the OHL and tunnel construction however not with works at Pentir. Likely to be an overlap in operation phases.	Shared receptors: VSAA GWNDDVS006 Bethel (between Clynnog and Bangor).  The proposed convertor station for Greenwire is located adjacent to the proposed Pentir Substation Extension, as such there would be a potential for a cumulative effect on landscape character.	Yes - VSAA GWNDDVS006 Bethel (between Clynnog and Bangor)
	Visual	Yes	Timescales currently unknown. If connection in place as per the agreement (completed by end of 2020) there would be an overlap with the OHL and tunnel construction however not with works at Pentir. Likely to be an overlap in operation phases.	Shared receptors: communities including Pentir and Rhiwlas, individual properties such as Ty'n-llwyn (R5/10768 & R5/10846), users of local PRowS and receptors of the road network.  The proposed convertor station for Greenwire is located adjacent to the proposed Pentir Substation Extension.  The Greenwire development would be located close to the Ty'n-llwyn and it is likely that this property would experience cumulative effects.	Yes - Ty'n-llwyn
	Ecology and Nature Conservation	Yes	Timescales currently unknown. If connection in place as per the agreement (completed by end of 2020) there would be an overlap with the OHL and tunnel construction however not with	Shared receptors: non-ancient woodland, acid grassland, heathland, badger, red squirrel and ornithology (breeding birds). Potential shared marine ecology receptors, dependent on the location of the cable landfall.  The Proposed Development has predicted <b>negligible</b> effects on non-ancient woodland, badger, red squirrel in areas of poor quality habitat areas, marine ecology receptors and breeding birds during operation, maintenance and decommissioning. Therefore, cumulative effects on these receptors are considered unlikely and	Yes - acid grassland, heathland, red squirrel in areas of high quality habitat and

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			works at Pentir. Likely to be an overlap in operation phases.	therefore are not considered further. The proposed convertor station for the Green Wire development is potentially to be located adjacent to the proposed Pentir Substation Extension and would involve underground cabling works. Whilst detailed information is currently not publically available regarding the potential residual effects of this 'other development' on these shared receptors, as the Proposed Development has identified a <b>minor</b> adverse effect on acid grassland, heathland, red squirrel in areas of high quality habitat and ornithology (breeding birds) during construction, there is the potential for significant cumulative effects.	breeding birds during construction
	Historic Environment	Yes	Timescales currently unknown. If connection in place as per the agreement (completed by end of 2020) there would be an overlap with the OHL and tunnel construction however not with works at Pentir. Likely to be an overlap in operation phases.	Shared receptors: Tŷ'n Llwyn Farm and farm buildings Grade II Listed Buildings (LB 83283, 83284, 83281, 83282, 83169, 83280, 83170, 83279, 83285) and Dinorwig Landscape of Outstanding Historic Interest.  There is the potential for cumulative effect to occur due to combined changes to the setting of the listed buildings at Tŷ'n Llwyn Farm (9 Grade II Listed buildings) as a result of construction of the Green Wire development at the same time as of the southern extension to Pentir Substation. There would also be a potential for a cumulative effect on the Dinorwig Landscape of Outstanding Historic Interest.  The Proposed Development is predicted to have <b>negligible</b> effects on Tŷ'n Llwyn Farm and farm buildings Grade II Listed Buildings (LB 83283, 83284, 83281, 83282, 83169, 83280, 83170, 83279, 83285) during the operational phase, therefore significant cumulative effects are considered unlikely and these receptors have been not considered further for the operational phase.	Yes - Tŷ'n Llwyn Farm and Dinorwig Landscape of Outstanding Historic Interest
	Water Quality Resources and Flood Risk	Yes	Timescales currently unknown. If connection in place as per the agreement (completed by end of 2020) there would be an overlap with the OHL and tunnel construction however not with works at Pentir. Likely to be an overlap in operation phases.	Shared receptor: Cegin WFD water body (GB11065058540).  The Green Wire construction and operational activities would be within the same catchment as the Proposed Development. As <b>negligible</b> effects from the Proposed Development have been predicted at shared receptors potential significant cumulative effects are considered unlikely and are not considered further in this assessment.	No



**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
	Traffic and Transport	Yes	Timescales currently unknown. If connection in place as per the agreement (completed by end of 2020) there would be an overlap with the OHL and tunnel construction however not with works at Pentir. Likely to be an overlap in operation phases.	Shared receptor: link 19 and 20.  Potential for cumulative effects on Link 19 for Severance, Fear and Intimidation and Link 20 for Severance, Pedestrian Delay, Fear and Intimidation, where the Proposed Development is predicted to see <b>minor</b> effects.	Yes
	Air Quality	Yes	Timescales currently unknown. If connection in place as per the agreement (completed by end of 2020) there would be an overlap with the OHL and tunnel construction however not with works at Pentir. Likely to be an overlap in operation phases.	Shared receptor: construction dust sensitive receptors within 350 m of both the Proposed Development and the Green wire construction site boundary. Air quality sensitive receptors located adjacent to the B4547 and A4244.  As <b>negligible</b> effects from the Proposed Development have been predicted at potential shared receptors. Potential significant cumulative effects are considered unlikely and are not considered further in this assessment.	No
	Construction Noise and Vibration	Yes	Timescales currently unknown. If connection in place as per the agreement (completed by end of 2020) there would be an overlap with the OHL and tunnel construction however not with works at Pentir.	Shared receptors: seven receptors within 500 m of Green Wire that lie within the Pentir area and are within the study area of the Proposed Development.  Although there is some overlap in programme the Green Wire works are expected to take place in 2020 which is before the works at Pentir Substation and the overhead line would take place in the area. Therefore the only overlap would be traffic in connection with the enabling works at Tŷ Fodol. These effects are likely to be <b>negligible</b> at the shared receptors and therefore significant cumulative effects are unlikely.	No
	Operational Noise	Yes	Timescales currently unknown. If connection in place as per the agreement (completed by end of 2020)	Shared receptors: R5/10768, Ty'n Llwyn R5/10846 and Fferm Cae Sgubor R5/11098.  As <b>negligible</b> effect from the Proposed Development have been predicted at shared	Yes - Ty'n Llwyn R5/10846 and Fferm

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			there would be an overlap with the OHL and tunnel construction however not with works at Pentir. Likely to be an overlap in operation phases.	receptor R5/10768 therefore potential significant cumulative effects are considered unlikely for this receptor and this receptor will not be considered further in this assessment.  However, as <b>minor</b> effects are predicted at Ty'n Llwyn R5/10846 and Fferm Cae Sgubor R5/11098 there is some potential for significant cumulative effects on these shared receptors.	Cae Sgubor R5/11098
	Agriculture	Yes	Timescales currently unknown. If connection in place as per the agreement (completed by end of 2020) there would be an overlap with the OHL and tunnel construction however not with works at Pentir. Likely to be an overlap in operation phases.	Shared receptor: BMV agricultural land (regional) and soil resource (shared receptor due to the spatial overlap of the two developments, resulting in a potential repeated disturbance to the same soils, whereas the agricultural land is assessed at the regional scale).  Due to the size and scale of the Green Wire development there is a potential for cumulative effects from the loss of BMV agricultural land.  The Green Wire Development would be expected to apply control measures to ensure that the disturbance and loss of soil resources would be reduced to a level where it would be acceptable in planning terms.  <b>Negligible</b> effects are predicted on the potential shared soil receptor by the Proposed Development therefore there is no potential for significant cumulative effects and soil recourse are not considered further in the assessment.	Yes – BMV
Llanbadrig Solar Farm	Landscape	Yes	It is likely that this development would be constructed before the construction phase of the Proposed Development. There would be an overlap with the operational phases.	Shared receptors: The following VSAs that lie within Anglesey Landscape Character Area (LCA) 5 North West Anglesey: YNSMNV008 North-west Drumlins (North); YNSMNV010 Drumlins with Windfarms; YNSMNV011 North Coast Hinterland; YNSMNV068 Cemaes; and YNSMNV069 Llanfechell.  The following potential shared receptors are predicted to experience <b>negligible</b> effects by the Proposed Development therefore significant cumulative effects are considered unlikely and these receptors are therefore not be considered further: <ul style="list-style-type: none"> <li>YNSMNV011 North Coast Hinterland;</li> <li>YNSMNV068 Cemaes; and</li> <li>YNSMNV069 Llanfechell.</li> </ul>	Yes - YNSMNV008 North-west Drumlins (North); and YNSMNV010 Drumlins with Windfarms;
	Visual	Yes	It is likely that this	Shared receptors: communities of Llanbadrig and Bodewryd.	Yes -

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			development would be constructed before the construction phase of the Proposed Development. There would be an overlap with the operational phases.	<p>The solar farm and the Proposed Development would be seen in combination by a number of visual receptors including communities in the north of Anglesey and individual properties, users on the A5025 and users of local PRoWs.</p> <p>The residential visual amenity study areas for the developments do not overlap, but it is acknowledged that some properties have the potential to view both developments either in combination (e.g. from the A5025 near Betws) or in succession (properties at Bodewryd). Information on the effects of other receptors e.g. roads, PRoW etc. is limited. Due to the undulating topography it is considered that views of both developments would primarily be in succession as receptors travel around the areas between Llanbadrig and Bodewryd.</p> <p>There is therefore a potential for significant cumulative effects.</p>	Llanbadrig and Bodewryd
	Ecology and Nature Conservation	Yes	It is likely that this development would be constructed before the construction phase of the Proposed Development. There would be an overlap with the operational phases.	<p>Shared receptors: grassland, great crested newts and brown hare.</p> <p>As either the Proposed Development or 'other development' have reported <b>negligible</b> effects on all of the shared receptors significant cumulative effects are considered unlikely and therefore are not considered further.</p>	No
	Historic Environment	Yes	It is likely that this development would be constructed before the construction phase of the Proposed Development. There would be an overlap with the operational phases.	<p>Shared receptor: Pen-y-Morwyd Round Barrow Scheduled Monument (AN 110).</p> <p>Potential for cumulative effects on the shared receptor to occur during the operational phase due to predicted changes in the settings of designated heritage asset.</p> <p>The Proposed Development is predicted to have <b>negligible</b> effects on Pen-y-Morwyd Round Barrow Scheduled Monument (AN 110) during the construction therefore significant cumulative effects are considered unlikely and this receptor has been not considered further for the construction phase.</p>	Yes - Pen-y-Morwyd Round Barrow Scheduled Monument
	Water Quality Resources and Flood Risk	Yes	It is likely that this development would be constructed before the construction phase of the Proposed Development.	<p>Shared receptor: Wygyr WFD water body (GB110102059170).</p> <p>The Llanbadrig Solar Farm construction and operational activities would be within the same catchment as the Proposed Development. As <b>negligible</b> effects from the Proposed Development have been predicted to the Afon Wygyr, potential significant</p>	No



**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			There would be an overlap with the operational phases.	cumulative effects are considered unlikely and therefore are not considered further.	
	Traffic and Transport	Yes	It is likely that this development would be constructed before the construction phase of the Proposed Development. There would be an overlap with the operational phases.	Shared receptor: link 1. Llanbadrig Solar Farm would be complete prior to the construction of the Proposed Development. The operational traffic is therefore included within the future baseline therefore the Proposed Developments assessment is inherently cumulative including this other development.	No
	Air Quality	Yes	It is likely that this development would be constructed before the construction phase of the Proposed Development. There would be an overlap with the operational phases.	Shared receptor: road traffic emissions receptors (human health and ecology) on the approach to and through Section A via the A5025 (link 1). Llanbadrig Solar Farm would be complete prior to the construction of the Proposed Development. The operational traffic is therefore included within the future baseline therefore the Proposed Developments assessment is inherently cumulative including this 'other development'.	No
	Construction Noise and Vibration	Yes	It is likely that this development would be constructed before the construction phase of the Proposed Development.	Shared receptors: receptors along common construction traffic routes. Llanbadrig Solar Farm would be complete prior to the construction of the Proposed Development. The operational traffic is therefore included within the future baseline therefore the assessment of effects from the Proposed Development includes this 'other development'.	No
	Agriculture	Yes	It is likely that this development would be constructed before the construction phase of the Proposed Development. There would be an overlap with the operational phases.	Shared receptor: BMV agricultural land (regional). The footprint of the supporting posts of the solar panels would be less than 1% of the total development area (< 1 ha) and sheep would be allowed to graze in between and beneath the solar panel arrays, therefore agricultural use would continue. Soil survey for the Llanbadrig Solar Farm has shown that the application site is classed as Grade 3b (non-BMV) therefore there is no potential for cumulative effects. There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
Codling Wind Park	Agriculture	Yes	On-shore elements are not currently the subject of a planning application therefore timescales are unknown. Potential for overlap between construction and operational phases.	Shared receptor: BMV agricultural land (regional).  Off-shore wind farm, with onshore infrastructure. Due to the size and scale of the Codling Wind Park there is a potential for cumulative effects from the loss of agricultural land.	Yes - BMV
Grŵp Llandrillo Menai Llangefni Campus	Landscape	Yes	Although some elements would be completed prior to the construction phase of the Proposed Development there is the potential for overlap between the full build out of the site (timescale currently unknown) and the construction of the Proposed Development. There is also overlap between the operational phases of the developments.	Shared receptors: The following VSAAs: YNSMNV012 Central smooth belt; and YNSMNV059 Llangefni, tree cover and field boundaries.  The ES for Grŵp Llandrillo Menai Llangefni Campus does not note any adverse effect on existing tree cover or field boundaries therefore cumulative effects on these shared receptors are considered unlikely.  There is potential for cumulative effects on landscape character during construction and operation with the exception of YNSMNV059 Llangefni. <b>Negligible</b> effects are predicted on the potential shared VSAA YNSMNV059 Llangefni receptor during the operational phase of the Proposed Development therefore significant cumulative effects during operation are considered unlikely.	Yes – tree cover and field boundaries
	Visual	Yes	Although some elements would be completed prior to the construction phase of the Proposed Development there is the potential for overlap between the full build out of the site (timescale currently unknown) and the construction of the Proposed Development. There is also overlap between the operational phases of the	Shared receptors: community of Llangefni and users of local PRoWs and the B5420 and B5109.  Effects from the Proposed Development are limited to areas which would not be affected by the development and therefore would be limited to views in succession as receptors travel around the community. Due to the differing scales of the developments and the existing and proposed vegetation around the development, cumulative effects would be limited; however further consideration is given at stage 3/4.	Yes – all receptors

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			developments.		
	Ecology and Nature Conservation	Yes	Although some elements would be completed prior to the construction phase of the Proposed Development there is the potential for overlap between the full build out of the site (timescale currently unknown) and the construction of the Proposed Development. There is also overlap between the operational phases of the developments.	<p>Shared receptors: Corsydd Môn/Anglesey Fens SAC, Caeau Talwrn SSSI, Cors Tregarnedd Fawr CWS, non-ancient woodland, scrub, hedgerows, grassland, red squirrel, bats and ornithology (breeding birds).</p> <p>Although the Grŵp Llandrillo Menai Llangefni Campus development is located approximately 400 m from the Order Limits, as either the Proposed Development or 'other development' have reported <b>negligible</b> effects on Corsydd Môn/Anglesey Fens SAC, Caeau Talwrn SSSI, Cors Tregarnedd Fawr CWS, non-ancient woodland, scrub, hedgerows, grassland, red squirrel in areas of poor quality habitat, bats and ornithology (breeding birds during operation, maintenance and decommissioning), significant cumulative effects on these receptors are considered unlikely and therefore are not considered further.</p> <p>As the Proposed Development has identified a <b>minor</b> adverse effect on red squirrel in areas of high quality habitat and ornithology (breeding birds) during construction, there is the potential for significant cumulative effects.</p>	Yes – red squirrel in areas of high quality habitat and breeding birds during construction
	Historic Environment	Yes	Although some elements would be completed prior to the construction phase of the Proposed Development there is the potential for overlap between the full build out of the site (timescale currently unknown) and the construction of the Proposed Development. There is also overlap between the operational phases of the developments.	Shared receptors: none.	No
	Water Quality Resources and Flood Risk	Yes	Although some elements would be completed prior to the construction phase of the Proposed Development there	<p>Shared receptors: Ceint WFD water body (GB110102058940) and Ceint to Cefni reservoir water body (GB110102058770).</p> <p>The other development is located within the same catchment as the Proposed</p>	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			is the potential for overlap between the full build out of the site (timescale currently unknown) and the construction of the Proposed Development. There is also overlap between the operational phases of the developments.	Development. As <b>negligible</b> effects from the Proposed Development have been anticipated to the Ceint and Ceint to Cefni reservoir water bodies, potential significant effects are considered unlikely.	
	Traffic and Transport	Yes	Although some elements would be completed prior to the construction phase of the Proposed Development there is the potential for overlap between the full build out of the site (timescale currently unknown) and the construction of the Proposed Development. There is also overlap between the operational phases of the developments.	<p>Shared receptor: link 6, link 8 and link 8.2.</p> <p>Effects as a result of the Proposed Development on link 8 are <b>negligible</b>, therefore potential significant cumulative effects are considered unlikely.</p> <p>The Proposed Development reports <b>minor</b> effects on link 6 for Severance, Pedestrian Delay and Fear and Intimidation, so there is the potential for cumulative effects during the respective construction phases.</p> <p>The Proposed Development reports <b>minor</b> effects on link 8.2 for Severance, and Fear and Intimidation, so there is the potential for cumulative effects during the respective construction phases.</p>	Yes – link 6 and 8.2
	Air Quality	Yes	Although some elements would be completed prior to the construction phase of the Proposed Development there is the potential for overlap between the full build out of the site (timescale currently unknown) and the construction of the Proposed Development. There is also overlap between the	<p>Shared receptor: road traffic emissions receptors (human health and ecology) on the approach to and through Section D via the B5420 (link 6) and A5114 (link 8) and the Llangefni Link Road (link 8.2).</p> <p>The Proposed development is predicted to have a <b>negligible</b> effect on air quality sensitive receptors near to these links. Therefore, significant cumulative effects are considered unlikely.</p>	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			operational phases of the developments.		
	Construction Noise and Vibration	Yes	Although some elements would be completed prior to the construction phase of the Proposed Development there is the potential for overlap between the full build out of the site (timescale currently unknown) and the construction of the Proposed Development.	<p>Shared receptors: around 1200 receptors in Llangenfnri along common traffic routes. The Grŵp Llandrillo Menai Llangefni Campus assessment does not state what the significance of effects from construction noise and vibration would be. However it is anticipated that only <b>minor</b> effects are likely to occur at the nearest receptors.</p> <p>Operational phase impacts of the Grŵp Llandrillo Menai Llangefni Campus are <b>negligible</b> and therefore unlikely to result in significant cumulative impacts with the construction of the Proposed Development.</p> <p>Noise and vibration effects from the Proposed Development at shared receptors are of <b>negligible</b> significance and therefore significant cumulative effects are unlikely.</p>	No
	Agriculture	Yes	Although some elements would be completed prior to the construction phase of the Proposed Development there is the potential for overlap between the full build out of the site (timescale currently unknown) and the construction of the Proposed Development. There is also overlap between the operational phases of the developments.	<p>Shared receptor: BMV agricultural land (regional).</p> <p>The majority of the Grŵp Llandrillo Menai Llangefni Campus site is agricultural land; however, a defined area of agricultural land or agricultural land take; or the BMV status of that land are not provided in the Environmental Statement.</p> <p>Based on the location of the proposed Grŵp Llandrillo Menai Llangefni Campus the Provisional 1:250,000 ALC indicates that all agricultural land within the site is Grade 3 and hence has the potential to be BMV, therefore there is potential for cumulative effects.</p> <p>There is no spatial overlap of the two developments and therefore no potential for repeated disturbance to the same soils (cumulative effects to soil resources).</p>	Yes - BMV
Dinorwig Cables	Landscape	Yes	Potential overlap between construction phases (cable installation is programmed for between 2019 and 2025) along with overlap in the operational phases.	<p>Shared receptors: the following VSAs: GWNDDVS006 Bethel (between Clynog and Bangor) and GWNDDVS011 Waen-Pentir.</p> <p>Potential shared receptors GWNDDVS011 Waen-Pentir is predicted to experience <b>negligible</b> effects by the Proposed Development therefore significant cumulative effects are considered unlikely.</p> <p>The renewal of the Dinorwig cables passes along the B4547 through the western edge of the community area of Rhiwlas and through Pentir to the substation. There</p>	Yes – VSA GWNDDVS006 Bethel (between Clynog and Bangor)



**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
				are potential cumulative landscape effects during construction, if both developments are undertaken at the same time.  During operation there would be no cumulative effects as the Dinorwig cables would be underground and the affected land reinstated.	
	Visual	Yes	Potential overlap between construction phases (cable installation is programmed for between 2019 and 2025) along with overlap in the operational phases.	Shared receptors: communities including Pentir and Rhiwlas and receptors on the B4547.  The renewal of the Dinorwig cables passes along the B4547 through the western edge of the community area of Rhiwlas and through Pentir to the substation. There are potential cumulative visual effects during construction, if both developments are undertaken at the same time, where construction works for the Pentir Substation Extension and cables would be visible for receptors moving about the communities and from Rhiwlas where there would be views down onto the works.  During operation there would be no cumulative effects as the Dinorwig cables would be underground and the affected land reinstated.	Yes - all
	Ecology and Nature Conservation	Yes	Potential overlap between construction phases (cable installation is programmed for between 2019 and 2025) along with overlap in the operational phases.	Shared receptors: non-ancient woodland, hedgerows, grassland, heathland, badger, red squirrel and ornithology (breeding birds).  The Proposed Development has predicted <b>negligible</b> effects on non-ancient woodland, non-Important Hedgerows, improved, semi-improved and marshy grassland, badger, red squirrel in areas of poor quality habitat and ornithology (breeding birds) during operation, maintenance and decommissioning, therefore cumulative effects on these receptors are considered unlikely and therefore are not considered further.  Whilst no information is currently publically available regarding the potential residual effects of the 'other development' on these shared receptors, there is the potential for significant cumulative effects on Important Hedgerows and a very small area of unimproved acid grassland to the south of Pentir Substation, heathland, red squirrel in areas of high quality habitat and ornithology (breeding birds) during construction.	Yes - Important Hedgerows acid grassland, heathland, red squirrel and breeding birds during construction
	Historic Environment	Yes	Potential overlap between construction phases (cable installation is programmed for between 2019 and 2025)	Shared receptor: Dinorwig Landscape of Outstanding Historic Interest.  There would be a potential for cumulative effects on the Dinorwig Landscape of Outstanding Historic Interest.	Yes - Dinorwig Landscape of Outstanding

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			along with overlap in the operational phases.		Historic Interest
	Geology Hydrogeology and Ground Conditions	Yes	Potential overlap between construction phases (cable installation is programmed for between 2019 and 2025) along with overlap in the operational phases.	Shared receptors: groundwater and soil.  There is the potential to require dewatering during construction phase with subsequent short-term depletion of groundwater levels within localised aquifers and short-term change to soil quality.  <b>Negligible</b> effects are predicted on the potential shared receptors as a result of the Proposed Development therefore significant cumulative effects are unlikely.	No
	Water Quality Resources and Flood Risk	Yes	Potential overlap between construction phases (cable installation is programmed for between 2019 and 2025) along with overlap in the operational phases.	Shared receptors: Cegin WFD water body (GB110065058540) and Nant y Garth (GB110065058490).  Details of this development are not available, but it is possible that it could involve construction and operational activities within the same catchments as the Proposed Development. Construction of the Proposed Development would result in a <b>negligible</b> effect on the Cegin waterbody therefore cumulative effects on this receptor are considered unlikely. A <b>minor</b> effect on the Nant y Garth waterbody due to the Proposed Development has been predicted; however, given the likely scale and nature of the works to replace cables, potential significant cumulative effects are considered to be unlikely and therefore are not considered further in the assessment.	No
	Traffic and Transport	Yes	Potential overlap between construction phases (cable installation is programmed for between 2019 and 2025) along with overlap in the operational phases.	Potential shared receptor: link 19 and 20.  Construction could overlap with the construction of the Proposed Development.  Potential for cumulative effects on Link 19 for Severance, Fear and Intimidation and Link 20 for Severance, Pedestrian Delay, Fear and Intimidation, where the Proposed Development is predicted to see <b>minor</b> effects.	Yes
	Air Quality	Yes	Potential overlap between construction phases (cable installation is programmed for between 2019 and 2025) along with overlap in the	Potential shared receptor: road traffic emissions receptors (human health) on the approach to and through Section F via the A4244 (link 20). Construction could overlap with construction of the Proposed Development with the potential for increased traffic on link 20.  Potential effects are unlikely to exceed <b>negligible</b> due to likely low number of	No



**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
			operational phases.	vehicle movements associated with Dinorwig Cables therefore significant cumulative effects on shared receptors are considered unlikely.	
	Construction Noise and Vibration	Yes	Potential overlap between construction phases (cable installation is programmed for between 2019 and 2025).	Shared receptors: potential overlap with receptors around Pentir.  Potential for cumulative effects on shared receptors to occur as a result of construction phase due to noise and vibration.  The Proposed Development has predicted <b>negligible</b> effects at four residential receptors, one caravan and one restaurant/cafeteria, which are shared receptors therefore cumulative effects on these shared receptors are considered unlikely.	Yes
	Operational Noise	Yes	Potential overlap between construction phases (cable installation is programmed for between 2019 and 2025) along with overlap in the operational phases.	Shared receptors: R5/10768, Ty'n Llwyn R5/10846 and Fferm Cae Sgubor R5/11098.  It is understood that current plans for the Dinorwig Cables project include a connection into Pentir Substation. The addition of any reactive plant at Pentir Substation, or within close proximity, would require the developer to consider the potential for significant effects from operational noise, either alone or cumulatively.  As <b>negligible</b> effects from the Proposed Development have been predicted at shared receptor R5/10768 potential significant cumulative effects are considered unlikely for this receptor. However, as <b>minor</b> effects are predicted at Ty'n Llwyn R5/10846 and Fferm Cae Sgubor R5/11098 there is some potential for significant cumulative effects on these shared receptors.	Yes - Ty'n Llwyn R5/10846 and Fferm Cae Sgubor R5/11098
	Agriculture	Yes	Potential overlap between construction phases (cable installation is programmed for between 2019 and 2025) along with overlap in the operational phases.	Shared receptor: soil resource (shared receptor due to the spatial overlap of the two development, resulting in a potential repeated disturbance to the same soils).  The Dinorwig Cables would be expected to apply control measures to ensure that the disturbance and loss of soil resources would be reduced to a level where it would be acceptable in planning terms. Furthermore, with trenches predominantly within the verges of the adopted highway network, would limit the scale of agricultural soil disturbance. The Proposed Development being mainly routed through agricultural soils and therefore there is limited potential for physical overlap of the two working areas.  <b>Negligible</b> effects are predicted on the potential shared soil receptor by the Proposed Development, therefore there is no potential for significant cumulative	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
				effects.	
Holyhead Port Expansion	Visual	Yes	Planning consent is not currently in place. Therefore timescales are unknown. Potential overlap between construction phases. Overlap between the operational phases.	Shared receptors: communities, trig points, users of the Wales Coast Path and users of roads.  Due to the distance, over 14 km, between the developments there significant cumulative visual effects are unlikely.  The Wales Coast Path would pass by both developments with a potential for sequential views, but as the path already passes by the port infrastructure and the <b>minor</b> effects identified from the Proposed Development for users of the Wales Coast Path there significant cumulative effects are unlikely.	No
	Ecology and Nature Conservation	Yes	Planning consent is not currently in place. Therefore timescales are unknown. Potential overlap between construction phases. Overlap between the operational phases.	Potential shared receptors: Atlantic salmon, marine mammals, North Anglesey Marine cSAC.  Effects as a result of the Proposed Development are <b>negligible</b> , therefore potential significant cumulative effects are considered unlikely.	No

**Table 20.5 Matrix 1 Summarising Stage 1 and Stage 2 of the Inter-Project CEA**

Development Name	Stage 1		Stage 2		
	Within Which Topic Specific ZOI?	Progress to Stage 2?	Overlap in Temporal Scope?	Scale and Nature of Development likely to have a Significant Cumulative Effect? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
	Traffic and Transport	Yes	Planning consent is not currently in place. Therefore timescales are unknown. Potential overlap between construction phases. Overlap between the operational phases.	Potential shared receptor: link 21. Effects as a result of the Proposed Development are <b>negligible</b> , therefore potential significant cumulative effects are considered unlikely.	No
	Air Quality	Yes	Planning consent is not currently in place. Therefore timescales are unknown. Potential overlap between construction phases. Overlap between the operational phases.	Shared receptors: air quality sensitive receptors located adjacent to the A55 (link 21). Proposed Development effects at sensitive locations adjacent to the A55 are <b>negligible</b> . Therefore, significant cumulative effects are considered unlikely.	No

- 4.1.5 As stated in paragraph 4.1.4, for the purpose of this assessment the study area for the Socio Economics typically extends to the administrative areas of Anglesey and Gwynedd. Therefore all the 'other developments' listed in Table 20.4 have progressed to stage 2 of the CEA. For this reason, Stage 2 of the Socio Economics CEA is reported separately in Table 20.6.

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**Table 20.6 Summary of Stage 2 of the Inter-Project CEA for Socio Economics**

Development Name	Stage 2		
	Overlap in Temporal Scope?	Scale and Nature of Development likely to have Significant Cumulative Effects? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
Wylfa Newydd Power Station	Potential overlap between both the construction and operational phases.	<p>Shared receptors: administrative areas of Anglesey and Gwynedd and amenity community receptors.</p> <p>Potential for cumulative effects on shared receptors during the construction phase. Potential effects common to both developments include changes in employment, increased expenditure in the local economy (expenditure and supply chain), increased demand for tourism accommodation, change in visitor numbers and increased demand for accommodation in the private rented sector.</p> <p>During operation of the Proposed Development, activities are expected to be undertaken by existing National Grid employees and the numbers would be expected to be low. Any employment generation that could be directly attributed to the operation of the Proposed Development would be minimal and represent a '<b>no change</b>' or '<b>no impact</b>' scenario and therefore cumulative effects on employment during operation are considered unlikely and are not considered further in this assessment.</p> <p>Potential for cumulative community amenity effects on shared receptors during the construction phase. The Proposed Development considered a total of 50 community settlements for potential effects on community amenity. Cemaes and Tregele are the nearest communities to the Wylfa Newydd Development Area, located to the north of Anglesey, and bordering the site boundary in some places. The effects from the Proposed Development for Cemaes during construction are assessed as <b>negligible</b> and therefore cumulative effects are considered unlikely and Cemaes are not considered further in this assessment.</p> <p>are not considered further</p>	Yes
Wylfa Nuclear Power Station Decommissioning	Overlap between all phases of the Wylfa Nuclear Power Station Decommissioning and the construction and operation of the Proposed Development.	<p>Shared receptors: administrative areas of Anglesey and Gwynedd.</p> <p>Potential for cumulative effects on shared receptors during the construction phase. Potential effects common to both developments include beneficial and adverse effects on employment.</p> <p>During operation of the Proposed Development, activities are expected to be undertaken by existing National Grid employees and the numbers would be expected to be low. Any employment generation that could be directly attributed to the operation of the Proposed Development would be minimal and represent a '<b>no change</b>' or '<b>no impact</b>' scenario and therefore cumulative effects on employment during operation are considered unlikely and are not considered further in this assessment.</p> <p>During Decommissioning, Care and Maintenance preparations for the Wylfa Nuclear Power Station Decommissioning, no requirement for permanent workers is expected. During final site clearance, low numbers of staff are anticipated therefore impacts are reported as <b>negligible</b></p>	Yes

**Table 20.6 Summary of Stage 2 of the Inter-Project CEA for Socio Economics**

Development Name	Stage 2		
	Overlap in Temporal Scope?	Scale and Nature of Development likely to have Significant Cumulative Effects? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
		and cumulative effects are unlikely so are not considered further in this assessment.  Effects on visitor numbers due to the closure of the Magnox Information Centre are not considered since the closure of the centre predates construction of the Proposed Development.	
Penrhos Leisure Village	Overlap between the full build out of the sites and the Proposed Development's construction and also an overlap between the operational phases of the developments.	Shared receptors: Administrative areas of Anglesey and Gwynedd.  Potential for beneficial cumulative effects on shared receptors during the construction and operational phases resulting from expected increases in employment and expenditure in the local economy. Due to the scale and nature of Penrhos Leisure Village, it is not anticipated that there would be any significant cumulative adverse effects.  During operation of the Proposed Development, activities are expected to be undertaken by existing National Grid employees and the numbers would be expected to be low. Any employment generation that could be directly attributed to the operation of the Proposed Development would be minimal and represent a ' <b>no change</b> ' or ' <b>no impact</b> ' scenario and therefore cumulative effects on employment during operation are considered unlikely and are not considered further in this assessment.	Yes
Anglesey Eco Park	The first phases of the Eco Park would be constructed by 2018 however full development would run to 2020/2021 therefore there is an overlap between the construction phases of this development and the Proposed Development. There would also be an overlap in the operational phases.	Shared receptors: administrative areas of Anglesey and Gwynedd.  No significant effects are reported from Anglesey Eco Park (Ref 17.72) however, there is potential for beneficial cumulative effects relating to employment and the local economy. It is not expected that there would be any adverse effects.  During operation of the Proposed Development, activities are expected to be undertaken by existing National Grid employees and the numbers would be expected to be low. Any employment generation that could be directly attributed to the operation of the Proposed Development would be minimal and represent a ' <b>no change</b> ' or ' <b>no impact</b> ' scenario and therefore cumulative effects on employment during operation are considered unlikely and are not considered further in this assessment.	Yes
Parc Cybi	The spine road and a truck stop has been completed. The hotel would be completed prior to the construction of the Proposed Development. Other elements of the outline permission may be constructed at the same time as the Proposed Development (timescale currently unknown). There would also be an overlap in the operational phases.	Shared receptors: administrative areas of Anglesey and Gwynedd.  Potential for beneficial cumulative effects on shared receptors during construction resulting from expected increases in employment and expenditure (expenditure and supply chain) in the local economy. Due to the scale and nature of Parc Cybi, it is not anticipated that there would be any significant cumulative adverse effects.  During operation of the Proposed Development, activities are expected to be undertaken by existing National Grid employees and the numbers would be expected to be low. Any employment generation that could be directly attributed to the operation of the Proposed Development would be minimal and represent a ' <b>no change</b> ' or ' <b>no impact</b> ' scenario and	Yes



**Table 20.6 Summary of Stage 2 of the Inter-Project CEA for Socio Economics**

Development Name	Stage 2		
	Overlap in Temporal Scope?	Scale and Nature of Development likely to have Significant Cumulative Effects? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
		therefore cumulative effects on employment during operation are considered unlikely and are not considered further in this assessment.	
Rhyd-y-Groes Re-power	Construction works have commenced and are expected to have been completed prior to the construction of the Proposed Development. There would be an overlap in the operational phases.	Shared receptors: administrative areas of Anglesey and Gwynedd. Cumulative effects are unlikely as the development would be operational by the time construction commences on the Proposed Development and there is little potential for shared operational receptors.	No
Holyhead Waterfront Re-development	Construction programme is anticipated to last 7 years in its entirety, which is likely to occur on a phased basis, however, the start date is unknown. Therefore an overlap could occur in construction and operational phases.	Shared receptors: administrative areas of Anglesey and Gwynedd. Potential for beneficial cumulative effects on shared receptors during the construction and operational phases resulting from expected increases in employment, expenditure in the local economy, and visitor numbers. It is not anticipated that there would be any significant cumulative adverse effects. During operation of the Proposed Development, activities are expected to be undertaken by existing National Grid employees and the numbers would be expected to be low. Any employment generation that could be directly attributed to the operation of the Proposed Development would be minimal and represent a ' <b>no change</b> ' or ' <b>no impact</b> ' scenario and therefore cumulative effects on employment during operation are considered unlikely and are not considered further in this assessment. Given that the Proposed Development reports expenditure and supply chain effects during construction and the Holyhead Waterfront Redevelopment reports effects during operation, the two assessments are not directly comparable. Effects would not occur at the same time and therefore no cumulative effect would be expected.	Yes
Glyn Rhonwy Pumped Storage	Construction is expected to last four years with the development operational by 2019. However as construction does not appear to have started yet, it is assumed that there could be an overlap between construction and operational phases.	Shared receptors: administrative areas of Anglesey and Gwynedd. Potential for beneficial cumulative effects on shared receptors during construction and operational phases resulting from expected increases in employment, expenditure in the local economy and visitor numbers. It is not anticipated that there would be any significant cumulative adverse effects. During operation of the Proposed Development, activities are expected to be undertaken by existing National Grid employees and the numbers would be expected to be low. Any employment generation that could be directly attributed to the operation of the Proposed Development would be minimal and represent a ' <b>no change</b> ' or ' <b>no impact</b> ' scenario and therefore cumulative effects on employment during operation are considered unlikely and are not considered further in this assessment.	Yes

**Table 20.6 Summary of Stage 2 of the Inter-Project CEA for Socio Economics**

Development Name	Stage 2		
	Overlap in Temporal Scope?	Scale and Nature of Development likely to have Significant Cumulative Effects? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
Underground Grid Connection between Glyn Rhonwy Pumped Storage Development and Pentir Substation	The connection is expected to take less than a year however as the start date is not currently known, it is assumed there could be overlap in the construction and operational phases.	Shared receptors: administrative areas of Anglesey and Gwynedd.  Significant cumulative effects are not considered likely due to the short construction period of less than a year, and the planned implementation of appropriate traffic management measures.	No
West Anglesey Demonstration Zone	Marine and planning consent is not currently in place. Therefore timescales are unknown.	Shared receptors: administrative areas of Anglesey and Gwynedd.  Potential for beneficial cumulative effects on shared receptors during construction and operational phases due to creation of temporary construction jobs and long-term jobs during operation. Beneficial effects on the local economy are likely as a result of local expenditure. It is not anticipated that there would be any significant cumulative adverse effects.  During operation of the Proposed Development, activities are expected to be undertaken by existing National Grid employees and the numbers would be expected to be low. Any employment generation that could be directly attributed to the operation of the Proposed Development would be minimal and represent a ' <b>no change</b> ' or ' <b>no impact</b> ' scenario and therefore cumulative effects on employment during operation are considered unlikely and are not considered further in this assessment.	Yes
Holyhead Deep	0.5 MW unit would be in place prior to the construction of the Proposed Development. Marine and planning consent for the 10 MW scheme are not currently in place. Therefore timescales are unknown.	Shared receptors: administrative areas of Anglesey and Gwynedd.  Potential for beneficial cumulative effects on shared receptors during construction and operational phases resulting from expected increases in employment and investment into the supply chain. It is not anticipated that there would be any significant cumulative adverse effects.  During operation of the Proposed Development, activities are expected to be undertaken by existing National Grid employees and the numbers would be expected to be low. Any employment generation that could be directly attributed to the operation of the Proposed Development would be minimal and represent a ' <b>no change</b> ' or ' <b>no impact</b> ' scenario and therefore cumulative effects on employment during operation are considered unlikely and are not considered further in this assessment.	Yes
A487 Caernarfon to Bontnewydd Bypass	Overlap between construction phases in 2020 to 2021 and the operational phases.	Shared receptor: administrative areas of Anglesey and Gwynedd.  There is potential for beneficial cumulative effects on the local economy to occur once the development is operational.	Yes

**Table 20.6 Summary of Stage 2 of the Inter-Project CEA for Socio Economics**

Development Name	Stage 2		
	Overlap in Temporal Scope?	Scale and Nature of Development likely to have Significant Cumulative Effects? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
Menai Science Park	The first phase of the development would be completed prior to the construction phase of the Proposed Development however the remainder of the development would take approximately 10 years to complete (more detailed timescale currently unknown) therefore is likely to overlap with both the construction and operation phases of the proposed development.	Shared receptors: administrative areas of Anglesey and Gwynedd.  There is potential for beneficial cumulative effects on the local economy and local employment market to occur during construction and operational phases.	Yes
Third Menai Crossing	Potential for the construction phases to overlap (construction timescale currently unknown anticipated to be 2020/2021 to 2022/2023). The operations phases would also overlap.	Potential shared receptors: administrative areas of Anglesey and Gwynedd and shared communities and PRowS.  There is potential for cumulative amenity effects on shared receptors during the construction phase (communities and PRowS). The communities in closest proximity to the Third Menai Crossing are Bangor, Llanfairpwll and Pentir. The following effects are <b>negligible</b> and are not considered further: construction effects on Bangor and operation effects for all communities. Effects during construction on both Llanfairpwll and Pentir are identified as <b>minor</b> adverse and these are therefore considered further.  PRowS within the above communities are considered for potential cumulative effects. There are no PRowS in Bangor or Llanfairpwll within the study area and a <b>negligible</b> effect is predicted for those within Pentir during both construction and operation. Therefore significant cumulative effects on PRowS are considered unlikely and are not considered further in this assessment.  There is potential for beneficial cumulative effects on the local economy (expenditure) and supply chain.	Yes
A55 Junction 15 & 16 improvements	Potential for the construction phases to overlap (timescales currently unknown but expected to be between autumn 2020 to autumn 2022). The operational phases would also overlap.	Shared receptors: administrative areas of Anglesey and Gwynedd.  Limited socio-economic information is available. Worker numbers are not available but would be expected to be very low. The effects of the A55 junction improvements are likely to be in relation to traffic and transport effects, relating to journey times, accessibility and driver stress, and are therefore unlikely to be relevant to the assessment of socio-economic effects.	No

Table 20.6 Summary of Stage 2 of the Inter-Project CEA for Socio Economics			
Development Name	Stage 2		
	Overlap in Temporal Scope?	Scale and Nature of Development likely to have Significant Cumulative Effects? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
A55 Abergwyngregyn to Tai'r Meibion Improvement	Overlap between construction phases in 2020 and the operational phases.	Shared receptors: administrative areas of Anglesey and Gwynedd.  Limited socio-economic information is available. Worker numbers are not available but would be expected to be very low. The effects of the A55 junction improvements are likely to be in relation to traffic and transport effects, relating to journey times, accessibility and driver stress, and are therefore unlikely to be relevant to the assessment of socio-economic effects.	No
Nant y Garth Landfill Site	Overlap of operation of landfill (time-limited to the end of July 2021) and construction of the Proposed Development.	Shared receptors: communities.  Planning consent was granted subject to the restoration of all trees and shrubs, and the removal of buildings and compounds at the end of the project. It is considered that due to the secluded location of the landfill, the surrounding topography masking the views, and the conditions created to ensure visual amenity of the area, significant cumulative community amenity effects would be unlikely.	No
Caernarfon Brickworks Quarry	Overlap between Proposed Development construction phase and operational phase of the compound and mineral extraction. Overlap of Proposed Development operation and restoration of the quarry.	Shared receptors: administrative areas of Anglesey and Gwynedd.  It is noted in the Caernarfon Brickworks Quarry scoping report (Ref 17.74) that the study area for community effects includes areas within the Caernarfon Brickworks Quarry site boundary and immediate surrounding network of footpaths and open space. Due to the scale and nature of the quarry, and the localised nature of effects, there are unlikely to be any significant cumulative effects.	No
Amlwch Liquid Natural Gas (LNG)	The construction phase may coincide with that of the Proposed Developments depending on planning consent (construction start date currently unknown). Likely to be an overlap in operation phases.	Shared receptors: administrative areas of Anglesey and Gwynedd.  Potential for cumulative effects on the local employment market during construction phase. During operation of the Proposed Development, activities are expected to be undertaken by existing National Grid employees and the numbers would be expected to be low. Any employment generation that could be directly attributed to the operation of the Proposed Development would be minimal and represent a ' <b>no change</b> ' or ' <b>no impact</b> ' scenario and therefore cumulative effects on employment during operation are considered unlikely and are not considered further in this assessment.	Yes
Green Wire	Timescales currently unknown. If connection in place as per the agreement (completed by end of 2020) there would be an overlap with the OHL and tunnel construction however not with works at Pentir. Likely to be an overlap in operation phases.	Shared receptors: communities  No environmental information is available; however, since both developments are expected to have elements located at Pentir Substation, there is potential for localised cumulative effects on community amenity.  A total of 50 community settlements are considered by the Proposed Development for potential effects on community amenity. Both developments are expected to have elements located at	Yes



**Table 20.6 Summary of Stage 2 of the Inter-Project CEA for Socio Economics**

Development Name	Stage 2		
	Overlap in Temporal Scope?	Scale and Nature of Development likely to have Significant Cumulative Effects? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
		Pentir Substation, resulting in the potential for localised cumulative effects on community amenity.	
Llanbadrig Solar Farm	It is likely that this development would be constructed before the construction phase of the Proposed Development. There would be an overlap with the operational phases.	Shared receptors: communities. A total of 50 community settlements are considered by the Proposed Development for potential effects on community amenity. Both developments have elements located in the community of Bodewryd, therefore there is potential for cumulative amenity effects on this community. However, since the Proposed Development concluded <b>negligible</b> amenity effects for Bodewryd this are not considered further in this assessment as significant cumulative effects are unlikely.	No
Codling Wind Park	On-shore elements are not currently the subject of a planning application therefore timescales are unknown. Potential for overlap between construction and operational phases.	Shared receptors: administrative areas of Anglesey and Gwynedd and communities. There is potential for beneficial cumulative effects on the local employment market and economy during the construction phase, as reported in the ES (Ref 17.70). During operation of the Proposed Development, activities are expected to be undertaken by existing National Grid employees and the numbers would be expected to be low. Any employment generation that could be directly attributed to the operation of the Proposed Development would be minimal and represent a ' <b>no change</b> ' or ' <b>no impact</b> ' scenario and therefore cumulative effects on employment during operation are considered unlikely and are not considered further in this assessment.	Yes
Grŵp Llandrillo Menai Llangefni Campus	Although some elements would be completed prior to the construction phase of the Proposed Development there is the potential for overlap between the full build out of the site (timescale currently unknown) and the construction of the Proposed Development. There is also overlap between the operational phases of the developments.	Shared receptors: administrative areas of Anglesey and Gwynedd. Potential for beneficial cumulative effects on shared receptors during construction and operational phases due to increases in local employment and increased investment in the local supply chain. During operation of the Proposed Development, activities are expected to be undertaken by existing National Grid employees and the numbers would be expected to be low. Any employment generation that could be directly attributed to the operation of the Proposed Development would be minimal and represent a ' <b>no change</b> ' or ' <b>no impact</b> ' scenario and therefore cumulative effects on employment during operation are considered unlikely and are not considered further in this assessment.	Yes
Dinorwig Cables	Potential overlap between construction phases (cable installation is programmed for between 2019 and 2025) along with overlap in the operational phases.	Shared receptors: communities. For the Proposed Development a total of 50 community settlements are considered for potential effects on community amenity. There is potential for cumulative community amenity effects due to both developments having elements located at Pentir and Rhiwlas. There is insufficient information as yet about the effects of the Dinorwig Cables development to allow a cumulative assessment to be undertaken and, as such, the potential cumulative effects with the	Yes

Table 20.6 Summary of Stage 2 of the Inter-Project CEA for Socio Economics			
Development Name	Stage 2		
	Overlap in Temporal Scope?	Scale and Nature of Development likely to have Significant Cumulative Effects? Relevant Shared Receptors and/or Pathways?	Progress to Stage 3/4?
		Proposed Development would need to be a consideration during the relevant assessment and consenting for that development. The Community Amenity Assessment for the Proposed Development concluded <b>minor</b> community amenity effects for Pentir and <b>negligible</b> Rhiwlas; the minor effect therefore has some potential for significant cumulative effects and is considered at stages 3 and 4. are not considered further	
Holyhead Port Expansion	Potential overlap between construction and operational phases.	<p>Share receptors: administrative areas of Anglesey and Gwynedd</p> <p>There is potential for beneficial cumulative effects on shared receptors during construction and operational phases due to increases in local employment and increased investment in the local supply chain, and effects on visitor numbers.</p> <p>During operation of the Proposed Development, activities are expected to be undertaken by existing National Grid employees and the numbers would be expected to be low. Any employment generation that could be directly attributed to the operation of the Proposed Development would be minimal and represent a 'no change' or 'no impact' scenario and therefore cumulative effects on employment during operation are considered unlikely and are not considered further in this assessment.</p> <p>The potential for an effect on visitor numbers and behaviour during construction and operation of the Proposed Development is recognised but on the basis of the available evidence it is considered unlikely that this effect would be realised. In conclusion, no significant effects are anticipated.</p> <p>The Holyhead port expansion is located to the west of Anglesey and approximately 20 km from the Proposed Development. It is therefore considered that during construction and operation, due to the distance of the scheme from the Proposed Development, cumulative effects on visitor numbers are unlikely to be significant and are not considered further in this assessment are not considered further</p>	Yes

## 4.2 STAGES 3 AND 4

- 4.2.1 Information gathered to support stage 3 of the assessment is presented in Appendix 20.1 Inter-Project Descriptions – Wylfa Newydd Power Station (**Document 5.20.2.1**) and Appendix 21.2 Inter-Project Descriptions (**Document 5.20.2.2**).
- 4.2.2 Stage 4 has entailed undertaking the CEA for the ‘short list’ of developments for each of the relevant topics. The results of this assessment are reported in a matrix format for each topic in Tables 20.7 to 20.17.



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*Landscape*

**Table 20.7 Landscape CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect?
Wylfa Newydd Power Station	<u>Isle of Anglesey Area of Outstanding Natural Beauty (AONB)</u> - Construction and operation effects: <b>Minor</b> Adverse (not significant).	<u>Isle of Anglesey Area of Outstanding Natural Beauty (AONB)</u> – Construction and operation effects: <b>Major</b> Adverse (significant) in the affected part of the AONB, <b>Minor</b> Adverse (not significant) over the AONB as a whole.	<p>A combination of the Wylfa Newydd Power Station and the Proposed Development would result in cumulative effects during construction on the following landscape receptors:</p> <ul style="list-style-type: none"> <li>Localised part of the Anglesey AONB where the <b>minor</b> adverse effect of the Proposed Development would exacerbate the localised <b>major</b> adverse effect of Wylfa Newydd Power Station;</li> <li>Localised parts of VSAA YNSMNV008 North-west Drumlins (North) where the <b>minor</b> adverse effect of the Proposed Development would exacerbate the localised <b>major, moderate</b> and <b>minor</b> adverse effects of Wylfa Newydd Power Station;</li> <li>VSAA YNSMNV068 Cemaes where the <b>minor</b> adverse effect of the Proposed Development would exacerbate the localised <b>major</b> and <b>moderate</b> adverse effects of Wylfa Newydd Power Station; and</li> <li>VSAA YNSMNV086 Wylfa Power Station where the <b>minor</b> adverse effect of the Proposed Development would exacerbate the localised <b>major</b> and <b>moderate</b> adverse effects of Wylfa Newydd Power Station.</li> </ul> <p>A combination of the Wylfa Newydd Power Station and the Proposed Development would result in cumulative effects during operation on the following landscape receptors:</p> <ul style="list-style-type: none"> <li>Localised part of the Anglesey AONB where the <b>minor</b> adverse effect of the Proposed Development would exacerbate the localised <b>major</b> adverse effect of Wylfa Newydd Power Station;</li> <li>Localised parts of VSAA YNSMNV008 North-west</li> </ul>	<p>No additional mitigation is proposed.</p> <p>The effects from Wylfa Newydd Power Station are greater than the Proposed Development which makes only a small contribution to the cumulative effect.</p>	<b>Significant</b>
	<u>SLA 14 Mynydd Mechell &amp; Surrounds</u> Construction and operation effects: <b>Minor</b> Adverse (not significant).	<u>SLA 14 Mynydd Mechell &amp; Surrounds</u> Construction and operation effects: <b>Minor</b> Adverse (not significant).			
	<u>VSAA YNSMNV008 North-west Drumlins (North)</u> Construction and operation effects: <b>Minor</b> Adverse (not significant).	Corresponding Wylfa Newydd landscape character receptors: <u>LLCA 1 North Drumlins</u> Construction effects: <b>Major</b> Adverse (significant). Operation effects: <b>Moderate</b> Adverse by year 15 (significant). <u>LLCA 3 Cemaes Bay Hinterland</u> Construction effects: <b>Major</b> Adverse (significant). Operation effects: <b>Moderate</b> Adverse by year 15 (significant). <u>LLCA 5 Lanfechell Farmland</u>			

**Table 20.7 Landscape CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect?
		<p>Construction effects: <b>Moderate</b> Adverse (significant).</p> <p>Operation effects: <b>Minor</b> Adverse by year 15 (not significant).</p> <p><u>LLCA 6 Tregele</u></p> <p>Construction effects: <b>Major</b> Adverse (significant).</p> <p>Operation effects: <b>Moderate</b> Adverse by year 15 (significant).</p> <p><u>LLCA 7 A5025 Farmland</u></p> <p>Construction effects: <b>Major</b> Adverse (significant).</p> <p>Operation effects: <b>Moderate</b> Adverse by year 15 (significant).</p> <p><u>LLCA 8 Llanfairynghornwy</u></p> <p>Construction effects: <b>Moderate</b> Adverse (significant).</p> <p>Operation effects: <b>Minor</b> Adverse by year 15 (not significant).</p> <p><u>LLCA 10 Cefn Coch Lowland</u></p> <p>Construction effects: <b>Minor</b> Adverse (not significant).</p> <p>Operation effects: <b>Minor</b> Adverse by year 15 (not significant).</p> <p><u>LSCA 1 Cemlyn Bay</u></p> <p>Construction effects: <b>Major</b> Adverse (significant).</p> <p>Operation effects: <b>Moderate</b> Adverse by year 15 (significant).</p>	<p>Drumlins (North) where the <b>minor</b> adverse effect of the Proposed Development would exacerbate the localised <b>major, moderate</b> and <b>minor</b> adverse effects of Wylfa Newydd Power Station; and</p> <ul style="list-style-type: none"> <li>VSAA YNSMNV086 Wylfa Power Station where the <b>minor</b> adverse effect of the Proposed Development would exacerbate the localised <b>moderate</b> adverse effects of Wylfa Newydd Power Station.</li> </ul> <p>The combination of <b>minor</b> effects attributed to the construction of Wylfa Newydd Power Station and the Proposed Development are not considered to result in significant cumulative effects during construction on the following landscape receptors:</p> <ul style="list-style-type: none"> <li>SLA 14 Mynydd Mechell &amp; Surrounds; and</li> <li>VSAA YNSMVS010 Drumlins with windfarms.</li> </ul> <p>The combination of <b>minor</b> effects on SLA 14 Mynydd Mechell &amp; Surrounds attributed to both the operation of Wylfa Newydd Power Station and the Proposed Development are not considered to result in significant cumulative effects on this receptor during operation.</p>		

**Table 20.7 Landscape CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect?
		<p><u>LSCA 2 Porth-y-pistyll</u></p> <p>Construction effects: <b>Major</b> Adverse (significant).</p> <p>Operation effects: <b>Major</b> Adverse (significant).</p> <p><u>LSCA 4 Wylfa Head</u></p> <p>Construction effects: <b>Major</b> Adverse (significant).</p> <p>Operation effects: <b>Minor</b> Adverse by year 15 (not significant).</p> <p><u>LSCA 5 Outer Cemaes Bay</u></p> <p>Construction effects: <b>Major</b> Adverse (significant).</p> <p>Operation effects: <b>Moderate</b> Adverse by year 15 (significant).</p> <p><u>LSCA 11 Hen Borth</u></p> <p>Construction effects: <b>Moderate</b> Adverse (significant).</p> <p>Operation effects: <b>Minor</b> Adverse by year 15 (not significant).</p>			
	<p><u>VSAA YNSMVS010</u></p> <p><u>Drumlins with windfarms</u></p> <p>Construction effects: <b>Minor</b> Adverse (not significant).</p>	<p>Corresponding Wylfa Newydd landscape character receptors:</p> <p><u>LLCA 12 Drumlins with Windfarms North</u></p> <p>Construction effects: <b>Minor</b> Adverse (not significant).</p>			

**Table 20.7 Landscape CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect?
	<u>VSAA YNSMNVS068 Cemaes</u> Construction effects: <b>Minor</b> Adverse (not significant).	Corresponding Wylfa Newydd landscape character receptors: <u>LLCA 4 Cemaes</u> Construction effects: <b>Moderate</b> Adverse (significant). <u>LSCA 6 Inner Cemaes Bay</u> Construction effects: <b>Major</b> Adverse (significant).			
	<u>VSAA YNSMNVS086 Wylfa Power Station</u> Construction and operation effects: <b>Minor</b> Adverse (not significant).	Corresponding Wylfa Newydd landscape character receptors: <u>LLCA 2 Wylfa Landscape Setting</u> Construction effects: <b>Major</b> Adverse (significant). Operation effects: <b>Moderate</b> Adverse by year 15 (significant). <u>LSCA 3 Wylfa Power Station</u> Construction effects: <b>Moderate</b> Adverse (significant) Operation effects: <b>Moderate</b> Adverse (significant).			
Wylfa Nuclear Power Station Decommissioning	<u>Anglesey AONB</u> Construction and operation effects: <b>Minor</b> Adverse (not significant).	The 2008 Environmental Statement Non-Technical Summary (2008 ES NTS) and Environmental Statement 2013 Update (ES 2013 Update) suggest that there may be some <b>significant</b> adverse impacts on the landscape of the AONB during Decommissioning, Care and Maintenance Preparations.	A combination of the Wylfa Nuclear Power Station Decommissioning Care and Maintenance Preparations and the construction and operation of Proposed Development would be likely to result in some localised cumulative effects on Anglesey AONB. The <b>minor</b> adverse effect of the Proposed Development would exacerbate the localised <b>significant</b> adverse effects of Decommissioning, Care and Maintenance Preparations related to Wylfa Nuclear Power Station. No significant cumulative effects are anticipated during	No additional mitigation is proposed.	Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.

**Table 20.7 Landscape CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect?
		<p>During Decommissioning, Care and Maintenance the 2008 ES NTS and ES 2013 Update suggest that the adverse impacts would reduce and would <b>no longer be significant</b>.</p> <p>During Final Site Clearance the 2008 ES NTS and ES 2013 Update suggest that there may be some <b>significant</b> adverse impacts on the landscape of the AONB.</p> <p>The impacts of decommissioning following Final Site Clearance are reported to be <b>beneficial</b> in the 2008 ES NTS and ES 2013 Update.</p>	<p>the Decommissioning, Care and Maintenance phase of Wylfa Nuclear Power Station which is likely to occur once the Proposed Development is operational.</p> <p>A combination of the Wylfa Nuclear Power Station Final Site Clearance and the operation of Proposed Development would be likely to result in some localised cumulative effects on Anglesey AONB. The <b>minor</b> adverse effect of the Proposed Development would exacerbate the localised <b>significant</b> adverse effects of Station Final Site Clearance related to Wylfa Nuclear Power Station.</p> <p>Once the Wylfa Nuclear Power Station is fully decommissioned following Final Site Clearance there would be no cumulative effects.</p>		<b>Significant</b>
	<p><u>VSAA YNSMNV086</u> <u>Wylfa Power Station</u></p> <p>Construction and Operation Effects: <b>Minor</b> Adverse (not significant)</p>	No information available.			
	<p><u>VSAA YNSMNV008</u> <u>North-west drumlins</u></p> <p>Construction and Operation Effects: <b>Minor</b> Adverse (not significant)</p>	No information available.			
Rhyd-y-Groes Re-power	<p><u>Anglesey AONB</u></p> <p>Construction and</p>	<p><u>Anglesey AONB</u></p> <p>Limited <b>significant</b> effects in</p>	A combination of the Rhyd-y-Groes Re-power and the Proposed Development would be likely to result in some	Due to the scale of the vertical elements proposed	<b>Significant</b>



**Table 20.7 Landscape CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect?
	operation effects: <b>Minor</b> Adverse (not significant).	localised parts of the AONB – relating to views from the AONB.	cumulative effects during construction and operation on the following landscape receptors:	by both developments, opportunities for mitigation other than siting/routeing are limited. No additional mitigation is proposed.	
	<u>SLA 14 Mynydd Mechell &amp; Surrounds</u>  Construction and operation effects: <b>Minor</b> Adverse (not significant).	<u>SLA 14 Mynydd Mechell &amp; Surrounds</u>  Effects: <b>Moderate/Minor</b> Adverse (not significant).	<ul style="list-style-type: none"> <li>Localised part of the Anglesey AONB where the <b>minor</b> adverse effect of the Proposed Development would exacerbate the localised <b>significant</b> adverse effect of Rhyd-y-Groes Re-power; and</li> <li>Localised parts of VSAA YNSMNV010 Drumlins with Windfarms where the <b>minor</b> adverse effect of the Proposed Development would exacerbate the localised <b>moderate</b> adverse effects of Rhyd-y-Groes Re-power.</li> </ul>		
	<u>VSAA YNSMNV004 Mynydd Bodafon</u>  Construction and operation effects: <b>Minor</b> Adverse (not significant).	<u>VSAA YNSMNV004 Mynydd Bodafon</u>  Effects: <b>Moderate</b> Adverse (not significant).	The combination of effects attributed to the Rhyd-y-Groes Re-power combined with the Proposed Development are not considered to result in <b>significant</b> cumulative effects during construction and/or operation on the following landscape receptors:		
	<u>VSAA YNSMNV008 North-west Drumlins (North)</u>  Construction and operation effects: <b>Minor</b> Adverse (not significant).	<u>VSAA YNSMNV008 North-west Drumlins (North)</u>  Effects: <b>Moderate/Minor</b> Adverse (not significant).	<ul style="list-style-type: none"> <li>SLA 14 Mynydd Mechell &amp; Surrounds;</li> <li>VSAA YNSMNV010 Drumlins with windfarms;</li> <li>VSAA YNSMNV004 Mynydd Bodafon;</li> <li>VSAA YNSMNV008 North-west Drumlins (North)</li> <li>VSAA YNSMNV008 North-west Drumlins (South)</li> <li>VSAA YNSMNV009 Mynydd Mechell</li> <li>VSAA YNSMNV012 Central Smooth Belt</li> <li>VSAA YNSMNV086 Wylfa Power Station</li> </ul>		
	<u>VSAA YNSMNV008 North-west Drumlins (South)</u>  Construction and operation effects: <b>Minor</b> Adverse (not significant).	<u>VSAA YNSMNV008 North-west Drumlins (South)</u>  Effects: <b>Moderate/ Minor</b> Adverse (not significant).			
	<u>VSAA YNSMNV009</u>	<u>VSAA YNSMNV009 Mynydd</u>			



**Table 20.7 Landscape CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect?
	<u>Mynydd Mechell</u> Construction and operation effects: <b>Minor</b> Adverse (not significant).	<u>Mechell</u> Effects: <b>Moderate/ Minor</b> Adverse (not significant).			
	<u>VSAA YNSMNV010 Drumlins with Windfarms</u> Construction and operation effects: <b>Minor</b> Adverse (not significant).	<u>VSAA YNSMNV010 Drumlins with Windfarms</u> Effects: <b>Moderate</b> Adverse (not significant).			
	<u>VSAA YNSMNV012 Central Smooth Belt</u> Construction effects: <b>Moderate</b> Adverse (significant). Operation effects: <b>Minor</b> Adverse by year 15 (not significant).	<u>VSAA YNSMNV012 Central Smooth Belt</u> Effects: <b>Minor Adverse</b> (not significant).			
	<u>VSAA YNSMNV069 Llanfechell</u> Construction and operation effects: <b>Minor</b> Adverse (not significant).	No information available.			
	<u>VSAA YNSMNV086 Wylfa Power Station</u> Construction and operation effects:	<u>VSAA YNSMNV086 Wylfa Power Station</u> Effects: <b>Minor</b> Adverse (not significant).			

**Table 20.7 Landscape CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect?
	<b>Minor</b> Adverse (not significant).				
Underground Grid Connection between Glyn Rhonwy Pumped Storage Development and Pentir Substation	<u>VSAA GWNDDVS006 Bethel (between Clynnog and Bangor)</u>  Construction and operation effects: <b>Moderate</b> Adverse (significant).	No information available.	There is potential cumulative landscape effects during construction, if both developments are undertaken at the same time; however, it is considered that these cumulative effects would not be significant due to the anticipated short timescales of the construction of the Underground Grid Connection. There would be no cumulative effects during operation.	No additional mitigation is considered necessary.	<b>Not significant</b>
A487 Caernarfon to Bontnewydd Bypass	<u>GWNDDVS006 Bethel (between Clynnog and Bangor)</u>  Construction and operation effects: <b>Moderate</b> Adverse (significant).	Corresponding A487 Caernarfon to Bontnewydd Bypass project level receptors:  <u>6 Open fields around Llanwnda/ Afon Carrog</u>  Construction effects: <b>Moderate</b> Adverse.  Operation effects: <b>Moderate</b> Adverse.  <u>8 Llanwnda</u>  Construction effects: <b>Slight</b> Adverse.  <u>11 A487 – south of Caernarfon</u>  Construction effects: <b>Substantial</b> Adverse.  Operation effects: <b>Moderate</b> Adverse.  <u>12 Pen-y-Bryn</u>  Construction effects: <b>Substantial</b> Adverse.  Operation effects: <b>Major</b>	Although the separate effects of the A487 Caernarfon to Bontnewydd Bypass and the Proposed Development are reported to be localised it is considered that together they would result in <b>moderate</b> cumulative effects, during construction, on the wider landscape character of GWNDDVS006 Bethel (between Clynnog and Bangor).  During operation these cumulative effects would reduce although would remain within <b>moderate</b> .	No additional mitigation is proposed.	Although there is likely to be some cumulative effect during construction, the overall significance is unlikely to be any greater than the effects considered separately.  <b>Significant</b> during construction  <b>Not significant</b> during operation

**Table 20.7 Landscape CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect?
		<p>Adverse.</p> <p><u>13 Fields southwest of Caeathro</u></p> <p>Construction effects: <b>Substantial</b> Adverse.</p> <p>Operation effects: <b>Moderate</b> Adverse.</p> <p><u>16 Holiday Park</u></p> <p>Construction effects: <b>Substantial</b> Adverse.</p> <p>Operation effects: <b>Major</b> Adverse.</p> <p><u>17 Afon Cadnant Plateau</u></p> <p>Construction effects: <b>Substantial</b> Adverse.</p> <p>Operation effects: <b>Moderate</b> Adverse.</p> <p><u>18 Bethel approaches</u></p> <p>Construction effects: <b>Substantial</b> Adverse.</p> <p>Operation effects: <b>Not significant.</b></p>			
Menai Science Park	<p><u>YNSMNV017</u></p> <p><u>Eastern smooth belt</u></p> <p>Construction effects: <b>Minor</b> Adverse (not significant).</p> <p>Operation effects: <b>Moderate</b> (significant).</p>	<p>No information found other than a Planning Committee Report dated 13.05.15 which states that an LVIA was submitted as part of the outline planning application and that this noted <b>Moderate</b> landscape effects within and close to the site but that these do not extend to the wider area.</p>	<p>There is potential for <b>moderate</b> cumulative landscape effects during construction; however, the overall significance during operation is unlikely to be significant, particularly as the effects of the Menai Science Park are reported to be within a localised area and not extending into the wider landscape.</p>	<p>No additional mitigation is proposed.</p>	<p>Construction <b>Significant</b></p> <p>Operation <b>Not Significant</b></p>

**Table 20.7 Landscape CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect?
	<u>YNSMNV018 South-west ridges</u> Construction and operation effects: <b>Moderate</b> Adverse (significant).	No information found other than a Planning Committee Report dated 13.05.15 which states that an LVIA was submitted as part of the outline planning application and that this noted <b>Moderate</b> landscape effects within and close to the site but that these do not extend to the wider area.			
	<u>YNSMNV091 A55 corridor</u> Construction and operation effects: <b>Minor</b> Adverse (not significant).	No information found other than a Planning Committee Report dated 13.05.15 which states that an LVIA was submitted as part of the outline planning application and that this noted <b>Moderate</b> landscape effects within and close to the site but that these do not extend to the wider area.			
Third Menai Crossing	<u>Tree cover</u> Construction effects: <b>Moderate</b> Adverse (significant).	No information available.	<p>There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.</p> <p>However, due to the level of tree cover either side of the Menai Strait it is likely that tree removal would be required for the Third Menai Crossing and that this removal could have a significant effect on tree cover. This combined with the <b>moderate</b> effects from the Proposed Development would result in a significant effect.</p>	No additional mitigation is proposed.	<b>Significant</b>
Green Wire	<u>VSAA GWNDDVS006 Bethel (between</u>	No information available.	There is insufficient information as yet about the effects of the other development, and as such the potential	No additional mitigation is proposed.	<b>Significant</b>

**Table 20.7 Landscape CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect?
	<u>Clynnog and Bangor</u>  Construction and operation effects: <b>Moderate</b> Adverse (significant).		cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.  However, additional development in the vicinity of Pentir Substation may have a significant effect on this VSAA due to size of the structures required and this, combined with the <b>moderate</b> effects from the Proposed Development, would result in a significant cumulative effect.		
Llanbadrig Solar Farm	<u>YNSMNVS008 North-west Drumlins (North)</u>  Construction and operation effects: <b>Minor</b> Adverse (not significant).	<u>General Landscape Character</u>  Overall construction landscape effect is predicted to be <b>Low</b> .  <u>North West Anglesey LCA (part of which comprises YNSMNVS008 North-west Drumlins (North))</u>  Overall Operational landscape effect is predicted to be <b>Minor</b> albeit the ES Landscape and Visual Amenity chapter recognises there would be <b>localised Moderate effects</b> on open agricultural fields, agricultural pasture and arable fields.	There is potential for <b>minor</b> cumulative landscape effects during construction and operation from the introduction of infrastructure within the VSAA's; however, the overall significance is unlikely to be any greater than the effects considered separately.	No additional mitigation is proposed. The effects from the Solar Farm are greater than the Proposed Development which makes only a small contribution to the cumulative effect.	<b>Not significant</b>
	<u>YNSMNVS010 Drumlins with Windfarms</u>  Construction and operation effects: <b>Minor</b> Adverse (not significant).	<u>General Landscape Character</u>  Overall construction landscape effect is predicted to be <b>Low</b> .  <u>North West Anglesey LCA (part of which comprises part of YNSMNVS010 Drumlins with</u>			

**Table 20.7 Landscape CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect?
		<u>Windfarms)</u> Overall operational landscape effect is predicted to be <b>Minor</b> albeit the ES Landscape and Visual Amenity chapter recognises there would be <b>localised Moderate effects</b> on open agricultural fields, agricultural pasture and arable fields.			
Grŵp Llandrillo Menai Llangefni Campus	<u>YNSMNVS012 Central smooth belt</u> Construction effects: <b>Moderate</b> Adverse (significant). Operation Effects: <b>Minor</b> Adverse by year 15 (not significant)	<u>Sites 4 and 5</u> Localised <b>Moderate</b> Adverse effect.	There is potential for cumulative landscape effects during construction and operation from construction activities and the introduction of structures into these VSAA's; however, the overall significance is unlikely to be any greater than the effects considered separately.	No additional mitigation is considered necessary.	Although there may be some very minor cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately  <b>Not significant</b>
	<u>YNSMNVS059 Llangefni</u> Construction effects: <b>Minor</b> Adverse (not significant).	<u>Sites 1, 2/3</u> Localised <b>Slight</b> Adverse effect.			
Dinorwig Cables	<u>GWNDDVS006 Bethel (between Clynog and Bangor)</u> Construction and operation effects: <b>Moderate</b> Adverse (significant).	No information available.	There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.  However, there could be significant effects on this VSAA through the presence of construction activities and this combined with the <b>moderate</b> effects from the Proposed	No additional mitigation is proposed.	Construction <b>Significant</b>

Table 20.7 Landscape CEA

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect?
			Development would result in a significant effect. There would be no cumulative effects during operation.		



Visual

Table 20.8 Visual CEA

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Wylfa Newydd Power Station	<p><u>Wales Coast Path</u> – Construction and operation:</p> <p><b>Minor</b> Adverse (not significant).</p>	<p><u>Wales Coast Path</u> – Construction:</p> <p><b>Moderate</b> Adverse (significant) to <b>Major</b> Adverse (significant).</p> <p>Operation:</p> <p><b>Negligible</b> (not significant) to <b>Major</b> Adverse (significant).</p>	<p>The Wylfa Newydd Power Station is a very large development and, as the Proposed Development is directly connected, shares a number of receptors which would have significant cumulative effects.</p> <p>A combination of the Wylfa Newydd Power Station and the Proposed Development would result in cumulative effects during construction and operation as follows.</p> <p>During construction the cumulative effect of the two developments together would result in significant cumulative effect on Tregele, Cemaes, and transient receptors on the Wales Coast Path, NCR 566 and A5025 although the effects would predominantly be from the construction works associated with the development.</p> <p>During operation there would continue to be significant cumulative effects on the Wales Coast path when users are in close proximity to both developments.</p> <p>For receptors in Cemaes and Tregele, there would continue to be a cumulative effects although due to the large scale mounding and mitigation planting the effects from the development would be reduced, the Proposed Development having a greater effect on those in close proximity within those communities.</p>	<p>No additional mitigation is proposed. Where significant effects are reported by the Proposed Development for properties, these could be addressed through the Voluntary Residential Planting Scheme (VRPS).</p>	<b>Significant</b>
	<p><u>NCR 566</u> - Construction and operation:</p> <p><b>Minor</b> Adverse (not significant).</p>	<p><u>NCR 566</u> – Construction:</p> <p><b>Moderate</b> Adverse (significant) to <b>Major</b> Adverse (significant).</p> <p>Operation:</p> <p><b>Minor</b> Adverse (not significant) to <b>Moderate</b> Adverse (significant).</p>			
	<p><u>Cemaes</u> - Construction and Operation:</p> <p><b>Minor</b> Adverse (not significant) (with <b>Moderate</b> Adverse (significant) for individual properties on western edge).</p>	<p><u>Cemaes</u> – Construction:</p> <p><b>Moderate</b> Adverse (significant).</p> <p>Operation:</p> <p><b>Minor</b> Adverse (not significant).</p>			
	<p><u>Tregele</u> – Construction</p>	<p><u>Tregele</u> – Construction:</p>			

**Table 20.8 Visual CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	and Operation: <b>Moderate</b> Adverse (significant).	<b>Major</b> Adverse (significant). Operation: <b>Minor</b> Adverse (not significant).			
	Llanfairynghornwy - Construction and Operation: <b>Minor</b> Adverse (not significant).	<u>Llanfairynghornwy</u> – Construction: <b>Moderate</b> Adverse (significant). Operation: <b>Minor</b> Adverse (not significant).			
	<u>A5025</u> - Construction and operation: <b>Minor</b> Adverse (not significant).	<u>A5025</u> –Construction <b>Moderate</b> Adverse (significant) to <b>Major</b> Adverse (significant). Operation: <b>Negligible</b> (not significant) to <b>Minor</b> Adverse (not significant).			
	<u>Trig Points at Mynydd y garn and Parys Mountain</u> Construction and operation: <b>Minor</b> Adverse (not	<u>Trig Points at Mynydd y garn and Parys Mountain</u> Construction: <b>Minor</b> Adverse (not significant).			

**Table 20.8 Visual CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	significant).	Operation: <b>Minor</b> Adverse (not significant).			
Rhyd-y-Groes Re-power	<u>Wales Coast Path (Anglesey Coast Path)</u> - Construction and operation: <b>Minor</b> Adverse (not significant).	<u>Wales Coast Path (Anglesey Coast Path)</u> - Operation: <b>Major/Moderate</b> Adverse (significant).	<p>There are a number of shared receptors as the developments are close in proximity with some receptors seeing the developments in combination, in succession and some experiencing sequential views. Both developments report effects to areas within the communities of Cemaes and Llanfechell and in some cases these are considered to be significant individually, the development having greater effect.</p> <p>In Cemaes views would mainly be in succession with receptors viewing the Proposed Development and development in different directions. The <b>minor</b> effect from the Proposed Development would add to the <b>major</b> adverse effect from the development resulting in a significant cumulative effect.</p> <p>Receptors in Llanbadrig would see the developments in combination. The <b>minor</b> effect from the Proposed Development would add to the <b>major/moderate</b> adverse effect from the development resulting in a significant cumulative effect.</p> <p>Receptors in Llanfechell would see the developments in combination. The <b>minor</b> effect from the Proposed Development would add to the <b>moderate/minor</b> adverse effect from the development resulting in a cumulative effect but not likely to be significant.</p> <p>Transient receptors using the A5025 and NCR 566 may see the developments in both combination and sequentially as users travel along the north coast of Anglesey. Significant effects are reported by the development and when viewed with</p>	Due to the scale of the vertical elements proposed by both developments, there are no opportunities for mitigation other than siting/routeing. Where significant effects are reported by the Proposed Development, these could be addressed through the VRPS.	<b>Significant</b>
	<u>NCR 566</u> - Construction and operation: <b>Minor</b> Adverse (not significant).	<u>NCR 566</u> - Operation: <b>Major/Moderate</b> Adverse (significant).			
	<u>Parys Mountain</u> - Construction and operation: <b>Minor</b> Adverse (not significant).	<u>Parys Mountain</u> - Operation: <b>Moderate/Minor</b> Adverse (not significant).			
	<u>A5025</u> - Construction and operation: <b>Minor</b> Adverse (not significant).	<u>A5025</u> - Operation: <b>Major/Moderate</b> Adverse (significant).			
	<u>Llanbadrig</u> - Construction and Operation: <b>Minor</b> Adverse (not significant).	<u>Llanbadrig</u> - Operation: <b>Major/Moderate</b> Adverse (significant).			

**Table 20.8 Visual CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	<u>Cemaes</u> - Construction and Operation: <b>Minor</b> Adverse (not significant). (with <b>Moderate</b> Adverse (significant) for individual properties on western edge).	<u>Cemaes</u> – Operation <b>Major</b> Adverse (significant).	the Proposed Development would lead to cumulative effects however these are considered to be no greater than the development considered individually.  Due to the distance from the developments the cumulative effects on views from the trig point at Parys Mountain are considered to be not significant.		
	<u>Llanfechell</u> - Construction and Operation: <b>Minor</b> Adverse (not significant) (with <b>Moderate</b> Adverse (significant) for individual properties on northern edge).	<u>Llanfechell</u> - Operation: <b>Moderate/Minor</b> Adverse (not significant).			
Underground Grid Connection between Glyn Rhonwy Pumped Storage Development and Pentir Substation	<u>Pentir</u> – Construction: <b>Moderate</b> Adverse (significant).	No information available.	There are potential cumulative visual effects during construction, if both developments are undertaken at the same time, where construction works for the Pentir Substation Extension and cables would be visible for receptors moving about the community of Pentir and from Rhiwlas where there would be views down onto the works.  As construction effects from the Proposed Development are <b>moderate</b> (significant), cumulative effects could be significant.	No additional mitigation is proposed.	Construction – <b>Significant</b>  Operation – <b>Not significant.</b>
	<u>Rhiwlas</u> - Construction: <b>Moderate</b> Adverse (significant).	No information available.			
	<u>Ty'n Llwyn (R5/10768 &amp; R5/10846)</u> Construction: <b>Moderate</b> Adverse (significant).	No information available.			

**Table 20.8 Visual CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	<u>B4547</u> Construction: <b>Minor</b> Adverse (not significant).	No information available.			
Green Wire	<u>Pentir</u> – Construction: <b>Moderate</b> Adverse (significant) Operation: <b>Moderate</b> Adverse (significant) reducing to <b>Minor</b> Adverse (not significant) in the long-term.	No information available.	There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.  However, due to the likely scale of the development at Pentir it is likely there would be significant cumulative effects for the community of Pentir and individual properties in close proximity to the substation particularly during construction.	No additional mitigation is proposed.	<b>Significant</b>
	<u>Rhiwlas</u> Construction: <b>Moderate</b> Adverse (significant) Operation: <b>Minor</b> Adverse (not significant) reducing to <b>Negligible</b> (not significant) in the long-term.	No information available.			
	<u>Ty'n Llwyn (R5/10768 &amp; R5/10846)</u> Construction: <b>Moderate</b> Adverse	No information available.			

**Table 20.8 Visual CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	(significant) Operation: <b>Minor</b> Adverse (not significant).				
	<u>B4547</u> Construction and operation: <b>Minor</b> Adverse (not significant).	No information available.			
Llanbadrig Solar Farm	<u>Llanbadrig</u> Construction: <b>Minor</b> Adverse (not significant). Operation: <b>Minor</b> Adverse (not significant).	<u>Llanbadrig</u> - <b>Minor</b> Adverse (not significant). effect on some individual properties.	Although both the Proposed Development and Llanbadrig Solar Farm report <b>minor</b> adverse (not significant) effects, these are not considered likely to have a cumulative effect of greater significance. Due to the distance and topography between the developments cumulative visual effects are limited to those receptors with longer distance views and therefore it is considered there would be a <b>minor</b> adverse (not significant) cumulative effect.	No additional mitigation is considered necessary.	Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately <b>Not Significant</b>
	<u>Bodewryd</u> <b>Minor</b> Adverse (not significant). Operation: <b>Minor</b> Adverse (not significant).	Bodewryd - <b>Minor</b> Adverse (not significant) effects on individual properties.			
Grŵp Llandrillo Menai Llangefni Campus	<u>Llangefni</u> Construction: <b>Minor</b> Adverse (not	Llangefni - <b>Slight to Substantial</b> Adverse with <b>Substantial</b> Adverse effects limited to those	Visual effects on Llangefni are not considered likely to have a cumulative effect of greater significance than the individual development as they are of different scales and visible for different parts of the community. The areas with the greatest	No additional mitigation is considered	Although there may be some very <b>minor</b> cumulative effect, the overall significance is



**Table 20.8 Visual CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	significant). Operation: <b>Minor</b> Adverse (not significant).	areas adjacent to the development.	effect from the development are not affected by the proposed development and vice versa.  Effects on PRow for the development have been assessed as <b>negligible</b> and <b>no change</b> and therefore there is no cumulative effects for users of PRow.  There may be sequential view for road users on the B5109 and B5109 where both developments have <b>minor</b> effects. As the views are glimpsed by a transient receptors then it is considered the cumulative effects would be <b>minor</b> (not significant) for road users.	necessary.	unlikely to be any greater than the effects considered separately  <b>Not Significant</b>
	<u>PRoW - 34/011/1</u> Construction: <b>Negligible</b> (not significant) Operation: <b>Minor</b> Adverse (Not significant).	<u>PRoW - 34/011/1</u> Operation <b>Negligible</b> (not significant).			
	<u>PRoW - 34/010/1</u> Construction: <b>Minor</b> Adverse (Not significant). Operation: <b>Minor</b> Adverse (Not significant).	<u>PRoW - 34/011/1</u> Operation <b>No Change.</b>			
	<u>B5109</u> Construction: <b>Minor</b> Adverse (not significant) Operation: <b>Minor</b> Adverse (Not significant).	<u>B5109</u> Operation: <b>Slight</b> Adverse (Not significant).			

**Table 20.8 Visual CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	<u>B5420</u> Construction: <b>Minor</b> Adverse (not significant) Operation: <b>Minor</b> Adverse (Not significant).	<u>B5420</u> Operation: <b>Slight</b> Adverse (Not significant).			
Dinorwig Cables	<u>Pentir</u> – Construction: <b>Moderate</b> Adverse (significant). Operation: <b>Moderate</b> Adverse (significant) reducing to <b>Minor</b> Adverse (not significant) in the long-term.	No information available.	<p>There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.</p> <p>If both developments were undertaken at the same time, construction works for the Pentir Substation Extension and cables would be visible for receptors moving about the community of Pentir and from Rhiwlas where there would be views down onto the works. As the effects of the Proposed Development are <b>moderate</b> for these receptors then it is likely these cumulative effects would be significant.</p> <p>Effects on the B4547 would be sequential during construction but due to the transient nature of views are likely to be <b>minor</b> as per the Proposed Development. This would depend on the final routeing of the Dinorwig Cables.</p> <p>Although there is likely to be some cumulative effects on the communities of Pentir and Rhiwlas if construction occurs concurrently, there would be no cumulative effects during operation.</p>	No additional mitigation is proposed.	Construction <b>Significant</b> Operation <b>Not Significant</b>
	<u>Rhiwlas</u> Construction: <b>Moderate</b> Adverse (significant). Operation: <b>Minor</b> Adverse (not significant) reducing to <b>Negligible</b> (not significant) in the long-term.	No information available.			

Table 20.8 Visual CEA

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the ‘other development’	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	<u>B4547</u> Construction and operation: <b>Minor</b> Adverse (not significant).	No information available.			

*Ecology and Nature Conservation*

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Wylfa Newydd Power Station	<u>Ancient woodland</u> – <b>Minor</b> Adverse (not significant).	<u>Ancient woodland</u> – <b>Major</b> Adverse (significant).	<p>Although Wylfa Newydd Power Station reports a <b>major</b> adverse (significant) effect and the Proposed Development reports a <b>minor</b> adverse (not significant) effect in relation to ancient woodland, these are not considered likely to have a cumulative effect of greater significance.</p> <p>The potential residual effect of the Wylfa Newydd Power Station on ancient woodland was reported as <b>major</b> adverse (significant) due to the removal of 0.8 ha of this habitat to facilitate construction of the Power Station. This was in relation to the loss of two small areas of ancient woodland (Simdda-Wen and The Firs Hotel) located within the footprint of the proposed Power Station site, the restricted range of this habitat on Anglesey and in recognition of its irreplaceability. Whilst listed on the Ancient Woodland Inventory, surveys found both sites did not present features or species considered representative of ancient woodland but did present a high frequency of non-native species. The two areas were also reported to not be linked by connecting habitats and to not form part of a larger complex of woodland habitat. All other effects of this 'other development' on ancient woodland, including construction activities located within close proximity to the retained woodland at Manor Garden were considered <b>negligible</b>.</p> <p>Residual effects of the Proposed Development on ancient woodland are assessed as <b>minor</b> adverse. This effect is considered to be on the cusp of negligible adverse due to the limited areas impacted, notably narrow strips alongside existing trackways, and the poor existing quality of these areas.</p> <p>Whilst indirect effects of the Proposed Development are predicted on the Simdda-Wen area of ancient woodland, as this area of woodland is to be lost as a result of the Wylfa Newydd Power Station, there is considered to be no potential for a cumulative effect. The next nearest area of ancient woodland which would be indirectly affected by the Proposed Development is 2.5 km from the Wylfa Newydd Power Station site. As this is not functionally linked to either the Simdda-Wen or The Firs Hotel areas of ancient woodland to be lost and the 'other development' is reported to have a <b>negligible</b> effect on other</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			areas of ancient woodland, there is considered to be no potential for a cumulative effect. The nearest areas of ancient woodland to this 'other development' within the Order Limits are alongside the Menai Strait and within Vaynol Park CWS within section F. As the Proposed Development in these locations would be within a tunnel these areas of ancient woodland would not be subject to direct effects. The nearest area of woodland to this 'other development' which would be directly impacted by the Proposed Development would be at the Pentir Substation. As this is in Gwynedd, this area of ancient woodland is considered not functionally linked to either the Simdda-Wen or The Firs Hotel areas of ancient woodland in the north-west of Anglesey. As the impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered not possible for the Proposed Development to contribute to a significant cumulative effect.		
	<u>Freshwater fish</u> – <b>Minor</b> Adverse (not significant).	<u>Freshwater fish</u> – <b>Minor</b> Adverse (not significant).	Although both the Proposed Development and Wylfa Newydd Power Station report <b>minor</b> adverse (not significant) effects in relation to freshwater fish, these are not considered likely to have a cumulative effect of greater significance. This is because the potential residual effects of the Wylfa Newydd Power Station on freshwater fish are limited to habitat loss/fragmentation in relation to loss of an approximately 200 m section of the Nant Porth-y-pistyll supporting a small population of European eel and realignment of a section of the Nant Caerdegog Isaf. All other effects of this 'other development' on freshwater fish were considered <b>neutral</b> (in the case of A5025 Off-line Highway Improvements) or <b>negligible</b> . Residual effects of the Proposed Development on freshwater fish are limited to very small scale, temporary direct loss of habitat, temporary disturbance/displacement/ degradation of fish habitat during construction and small scale severance and fragmentation of fish habitat at localised locations on watercourses across the Order Limits rather than at a particular location. As such, the impacts are on very small sections of watercourse in catchments mainly not connected to those impacted by the Wylfa Newydd Power Station development. As the impacts are very small scale and temporary, with continuity of flow ensured throughout and clear-span bridges used where appropriate, the resulting <b>minor</b> adverse effect of the Proposed Development on freshwater fish is considered	No additional mitigation is considered necessary.	Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.  <b>Not Significant</b>

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			to be on the cusp of negligible adverse. As the impact would need to be substantially greater for a moderate adverse effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.		
	<u>Red squirrel</u> in areas of high quality habitat – <b>Minor</b> Adverse (not significant) during construction.	<u>Red squirrel</u> – <b>Minor</b> Adverse (not significant).	<p>Although the Proposed Development and the development of Wylfa Newydd Power Station both report <b>minor</b> adverse residual effects on red squirrel, these are not considered likely to have a cumulative effect of greater significance.</p> <p>The potential residual effects of the Wylfa Newydd Power Station on red squirrel are assessed as a short term risk of disturbance. All other effects, including habitat loss/fragmentation and risk of mortality and injury, are reported to be <b>negligible</b>. Targeted surveys undertaken in 2016 for this 'other development' recorded evidence of red squirrels within seven areas of woodland habitat. Surveys undertaken for the Proposed Development also confirmed red squirrel drey (calling squirrels heard) in Section A within coniferous forest within the Wylfa Newydd Power Station site. Additional mitigation for red squirrel in relation to the Wylfa Newydd Development Area would comprise the enhancement of existing habitats on Dame Sylvia Crowe's Mound by erecting artificial dreys (maximum of ten boxes) and providing a supplementary food resource (on a monthly basis during construction).</p> <p>The residual effects of construction, maintenance and decommissioning of the Proposed Development are assessed as having a <b>negligible</b> effect on the conservation status of red squirrel, which is considered of County value. The <b>minor</b> adverse effect is in relation to the loss of high quality habitat for red squirrel. Such areas of habitat are avoided wherever possible as part of the design process. One of the main areas for this species is in the woodlands alongside the Menai Strait. As the Proposed Development would be within a tunnel at this location, these woodlands would not be subject to direct or long term effects. As a result, impacts on areas of habitat suitable for red squirrel are restricted to substation areas where woodland would require removal and where the OHL would pass through or near to areas of woodland. The small scale extent of loss, together with the availability of alternative habitat locally, low levels of red squirrel activity found during surveys and mitigation planting</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not Significant</b></p>



**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			which means in the long term there would be replacement habitat, means the effect is considered to be on the cusp of negligible adverse. As the cumulative impact would need to be substantially greater in order for a moderate adverse effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.		
	Ornithology (breeding birds) – <b>Minor</b> Adverse (not significant) during construction.	Ornithology (breeding birds) – <b>Minor</b> Adverse (significant).	<p>Although the assessment of the Proposed Development reports a <b>minor</b> adverse residual effect and the Wylfa Newydd Power Station development reports a potential <b>moderate</b> adverse effect on breeding birds during construction, these are not considered likely to have a cumulative effect of greater significance.</p> <p>The potential residual effects of this 'other development' on breeding birds are reported as <b>negligible</b> in relation to mortality and injury, direct loss of foraging, nesting and roosting habitat and hydrological changes.</p> <p>The <b>minor</b> adverse effect of the Wylfa Newydd Power Station development on breeding birds is reported solely in relation to disturbance at or near the development area.</p> <p>To ensure the long-term presence of notable species in this area, it is reported that an off-site enhancement area approximately 15 ha in size secured by the developer to the west of the Wylfa Newydd Development Area would be managed to support a range of species including breeding birds.</p> <p>The residual <b>minor</b> adverse residual effects of the Proposed Development on the County value of the assemblage of breeding birds of high conservation concern in the vicinity of Wylfa are in relation to the small areas of potential bird nesting habitat loss during construction, maintenance and decommissioning and potentially disturbing activities within or close to the Order Limits during construction, operation, maintenance and decommissioning. As the Wylfa Newydd Power Station development reports a potential residual <b>negligible</b> effect in relation to loss of habitat, there is considered to be no potential for a cumulative effect with this impact. The residual effects of the Proposed Development in relation to disturbance and displacement of breeding birds are considered to be on the cusp of negligible adverse due to the short-term,</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not Significant</b></p>

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			localised and small scale nature of the impacts. These would be limited to when potentially disturbing activities are underway, which would not always be in the vicinity of this 'other development' throughout construction, operation, maintenance and decommissioning. Maintenance activities in particular could happen at any time of year but are unlikely to have an effect on more than a short period, during any given breeding season. As the cumulative impact would need to be substantially greater for a moderate adverse effect to be reported, it is therefore considered unlikely for the Proposed Development to contribute to a significant cumulative effect.		
Rhyd-y-Groes Re-power	<u>Ornithology (breeding birds)</u> – <b>Minor</b> Adverse (not significant) during construction.	<u>Ornithology (breeding birds)</u> – (not significant) during construction.	<p>Although the assessment of the Proposed Development reports a <b>minor</b> adverse residual effect and the Rhyd-y-Groes Re-power development reports a potential not significant effect on breeding birds during construction, these are not considered likely to have a cumulative effect of greater significance.</p> <p>The potential residual effects of the Rhyd-y-Groes Re-power project on breeding birds during construction are assessed as not significant. A total of 12 Species of Conservation Concern were assessed as probably breeding and a further 12 Species of Conservation Concern assessed as possibly breeding within the Rhyd y Groes site and the 500 m survey buffer during breeding bird surveys in 2011. The baseline data indicated it was unlikely that the study area would become occupied by Schedule1 nesting birds. The residual effects of this 'other development' on breeding birds during construction are reported to be localised and temporary habitat loss totalling just over 20 ha of pasture and arable habitat and just over 500 m of field boundaries equating to approximately 1.2% of the available resource for farmland birds.</p> <p>The residual effects on the farmland, hedgerow, woodland and scrub breeding bird assemblage of species of high conservation concern in the entirety of the Order Limits are considered <b>negligible</b> for all effects other than a <b>minor</b> adverse residual effect for permanent loss of habitats as a foraging and breeding resource. This impact is considered to be on the cusp of negligible adverse due to the areas of potential permanent bird nesting habitat loss being very small at a number of locations across the Order Limits rather than a more specific loss at a specific location. As the 'other development' is over 850 m</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not Significant</b></p>

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			from the Order Limits there is considered to be no overlap in nesting habitat and limited overlap in foraging habitat between the two breeding bird communities. As the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.		
Glyn Rhonwy Pumped Storage	<u>Acid dry heath</u> – <b>Minor</b> Adverse (not significant) during construction.	<u>Dry heath/acid grassland</u> – <b>Minor</b> Adverse (not significant).	<p>Although the assessments of the Proposed Development and Glyn Rhonwy Pumped Storage development report a <b>minor</b> adverse residual effect on dry heath/acid grassland during construction, these are not considered likely to have a cumulative effect of greater significance.</p> <p>Construction of the Glyn Rhonwy Pumped Storage development was reported to have a potential <b>minor</b> adverse residual effect on dry heath/acid grassland. This was in relation to the temporary disturbance and removal of 0.3 ha (1.7%) of this habitat for construction compounds etc., and permanent disturbance and removal of 2.1 ha (12.3%) for the construction of a dam. The potential residual effects on other areas of dry heath/acid grassland habitat from damage through vehicles or machinery tracking over this habitat, repeated foot traffic or pollution/run-off during operation of this 'other development' were reported as <b>negligible</b> with good site working practices including protective fencing of retained areas of habitat. There were reported to be no operational effects on these retained areas.</p> <p>Remnants of acid dry heath and their characteristic species have been identified within the study area of the Proposed Development (within the Order Limits and land up to 50 m beyond this boundary). These remnants are on the boundaries of improved fields and within hedgerows and cloddiau indicating a previously more widespread occurrence of this habitat. The only more extensive area within the study area is in Section F to the south of Pentir Substation. The total area of this habitat within the survey area is 5.66 ha, of which 1.38 ha (25%) is within the Order Limits. Impacts of the Proposed Development on acid dry heath, which is considered to be of County value, relate to temporary disturbance/ displacement/ degradation and potential loss. The residual effect on this habitat of temporary disturbance/ displacement/</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not Significant</b></p>

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>degradation has been assessed as <b>negligible</b> for all stages of the Proposed Development. The <b>minor</b> adverse effect relates to the small amounts of temporary loss during construction and potentially decommissioning, notably for the access track at Pentir Substation. This is considered to be on the cusp of negligible adverse because there would be no permanent loss of acid dry heath habitat as the area of this habitat used for the access track at Pentir Substation would be reinstated following completion of the works. Whilst reinstatement of acid dry heath may be more difficult than for some other habitats, it is expected that through the application of restoration techniques based on best practice ecological principles that reestablishment of the required vegetation communities would be achieved.</p> <p>It is likely that the only access required at the Pentir Substation during operation and maintenance would be via the existing substation access road. There are therefore considered to be no effects during operation or maintenance. This, together with the Proposed Development and Glyn Rhonwy Pumped Storage being over 6 km apart such that, the two areas of this habitat can be considered ecologically isolated, means the cumulative impact would need to be substantially greater for a moderate adverse residual effect to occur, and it is therefore considered unlikely for the Proposed Development to contribute to a significant cumulative effect.</p>		
	<p><u>Acid grassland</u> – <b>Minor</b> Adverse (not significant) during construction.</p>	<p><u>Dry heath/acid grassland</u> – <b>Minor</b> Adverse (not significant).</p>	<p>Although the assessments of the Proposed Development and Glyn Rhonwy Pumped Storage development report a <b>minor</b> adverse residual effect on dry heath/acid grassland during construction, these are not considered likely to have a cumulative effect of greater significance.</p> <p>Construction of the Glyn Rhonwy Pumped Storage development was reported to have a potential <b>minor</b> adverse residual effect on dry heath/acid grassland. This was in relation to the temporary disturbance and removal of 0.3 ha (1.7%) of this habitat for construction compounds etc., and permanent disturbance and removal of 2.1 ha (12.3%) for the construction of a dam. The potential residual effects on other areas of dry heath/acid grassland habitat from damage through vehicles or machinery tracking over this habitat, repeated foot traffic or pollution/run-off during operation of this 'other development' were reported as</p>	<p>No additional mitigation is considered necessary.</p>	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p>

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p><b>negligible</b> with good site working practices including protective fencing of retained areas of habitat. There were reported to be no operational effects on these retained areas.</p> <p>A total of 1.23 ha of acid grassland was recorded inside the Order Limits and land up to 50 m beyond this boundary (referred to as the 'study area') of the Proposed Development, with 0.58 ha present within the Order Limits. Of this, a very small area (0.07 ha) to the south of Pentir Substation accounted for around 12% of the Order Limit total. The <b>minor</b> adverse effect relates to the potential small scale temporary loss of this habitat, which is considered to be of Local value, during construction and potentially decommissioning, notably for the access track at Pentir Substation if it is not possible to avoid such loss, and temporary disturbance/ displacement/ degradation during construction, maintenance and decommissioning. This is considered to be on the cusp of negligible adverse because there would be no permanent loss of acid grassland as the area of this habitat used for the access track at Pentir Substation would be reinstated following completion of the works. Whilst reinstatement of acid grassland may be more difficult than for some other habitats, it is expected that through the application of restoration techniques based on best practice ecological principles that reestablishment of the required vegetation communities would be achieved. It is likely that the only access required at the Pentir Substation during operation and maintenance would be via the existing substation access road. As the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.</p>		<b>Not Significant</b>
	<p><u>Reptiles</u> in areas of high quality habitat – <b>Minor</b> Adverse (not significant) during construction, maintenance, and decommission.</p>	<p><u>Reptiles</u> – <b>Minor</b> Adverse (not significant).</p>	<p>Although the assessments of the Proposed Development and Glyn Rhonwy Pumped Storage development report a <b>minor</b> adverse residual effect on reptiles during construction, maintenance, and decommissioning, these are not considered likely to have a cumulative effect of greater significance.</p> <p>Construction of the Glyn Rhonwy Pumped Storage development was reported to have a potential <b>minor</b> adverse residual effect on reptiles with low numbers of slow worm recorded around a quarry and low numbers of common lizard</p>	<p>No additional mitigation is considered necessary.</p>	<p>Although there is likely to be some cumulative effect, the overall significance is</p>



**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>recorded across the whole of the development area Order Limits, but mainly associated with a quarry. This was due to the removal of terrestrial habitat (quarries, heath/acid grassland mosaic, scrub, woodland edges and dry stone walls) with the potential to support reptiles, as well as the predicted impacts from noise and vibration. It was reported that a large proportion of habitats with the potential to support reptiles would be retained within the site boundary of this 'other development' and that there are similar habitats of equal or greater value to reptiles in the immediate surroundings. Proposed mitigation included retaining hand searching and strimming of access tracks, avoiding potential refugia within the quarries to prevent disturbance to hibernating reptiles and the creation of additional spoil piles.</p> <p>The residual effects of the Proposed Development on the shared receptor of reptiles are assessed as <b>minor</b> adverse (not significant) for the temporary and permanent loss of high quality potential reptile habitat. As the Proposed Development is designed to ensure habitat loss would be limited where possible, replaced, improved or repositioned in as close proximity as possible to that lost and designed to prevent fragmentation, the severity of severance and fragmentation of habitat suitable to support reptiles during construction, maintenance and decommission would be Low and Very Low during operation. Whilst residual severance and fragmentation of habitat suitable for reptiles could occur any standard fencing installed during construction, maintenance and decommission for the OHL working areas would not prevent the movement of reptiles other than where temporary fencing would be installed as part of the licenced mitigation to move or exclude great crested newts from the working areas, though no reptiles have been found in these areas to date. Habitat would be replaced, or improved where possible in as close proximity as possible and designed to prevent fragmentation. This, together with the Proposed Development and Glyn Rhonwy Pumped Storage being over 6 km apart such that the two areas of this habitat can be considered ecologically isolated, means the cumulative impact would need to be substantially greater for a moderate adverse residual effect to occur, and it is therefore considered unlikely for the Proposed Development to contribute to a significant cumulative effect.</p>		<p>unlikely to be any greater than the effects considered separately.</p> <p><b>Not Significant</b></p>



**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	<u>Ornithology (breeding birds)</u> – <b>Minor</b> Adverse (not significant).	<u>Ornithology (breeding birds)</u> – <b>Minor</b> Adverse (not significant).	<p>Although the assessments of the Proposed Development and the Glyn Rhonwy Pumped Storage development conclude <b>minor</b> adverse residual effects on breeding birds, these are not considered likely to have a cumulative effect of greater significance.</p> <p>The potential residual effects of the Glyn Rhonwy Pumped Storage project on breeding birds was reported as <b>minor</b> adverse in relation to removal of potential nesting quarry habitat for Schedule 1 species of birds. It was however also reported that there would be no direct impact on Schedule 1 species due to habitat loss as they were found not to be using the quarries during the bird surveys. The potential residual effects of this 'other development' on breeding birds were reported as <b>minor</b> adverse in relation to removal of potential quarry and woody vegetation nesting habitat for Red and Amber listed species. It was reported these effects were expected to be temporary as a number of quarries and woody habitats would be retained within the site boundary of this 'other development' and because there was an abundance of similar habitats of equal or greater value with the potential to support breeding birds in the immediate surroundings. Although it was reported that a number of bird species had been recorded breeding in and around the quarries, the woodland, heathland and scrub of the site of this 'other development', disturbance was reported to have a <b>negligible</b> effect on both Schedule 1 and Red or Amber listed species.</p> <p>The residual effects of the Proposed Development on the farmland, hedgerow, woodland and scrub breeding bird assemblage of species of high conservation concern in the entirety of the Order Limits are considered <b>negligible</b> for all effects other than a potential <b>minor</b> adverse residual effect for permanent loss of habitats as a foraging and breeding resource. This impact is considered to be on the cusp of negligible adverse due to the areas of potential permanent bird nesting habitat loss being very small at a number of locations across the Order Limits rather than at a more specific loss at a specific location. This, together with the Proposed Development and Glyn Rhonwy Pumped Storage being over 6 km apart such that the two areas of this breeding bird habitat can be considered ecologically isolated, means the cumulative impact would need</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not Significant</b></p>

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			to be substantially greater for a moderate adverse residual effect to occur, and it is therefore considered unlikely for the Proposed Development to contribute to a significant cumulative effect.		
Underground Grid Connection between Glyn Rhonwy Pumped Storage Development and Pentir Substation	<u>Ornithology (breeding birds)</u> – <b>Minor</b> Adverse (not significant).	No information available.	The residual effects of the Proposed Development on the shared receptor of breeding bird assemblage of species of high conservation concern at the Pentir Substation are assessed as <b>negligible</b> in relation to temporary loss of habitats during construction and/or decommission and temporary and permanent disturbance and displacement during construction, operation, maintenance and decommissioning. The <b>minor</b> adverse effect relates to the loss of habitat as a foraging and breeding resource for birds during operation of the Proposed Development. This impact of the Proposed Development is considered to be on the cusp of negligible adverse due to the area of potential permanent bird nesting habitat loss being very small. As areas of nesting habitat are avoided wherever possible as part of the design process, permanent loss is limited to where this habitat is within the footprint of proposed infrastructure. Provided the existing Pentir Substation entrance road would be used during operation and maintenance of the Proposed Development, the expectation is that the majority of any loss of bird breeding habitat during construction and/or decommissioning would be reinstated following the completion of works. It is also expected that through the application of restoration techniques based on best practice ecological principles that reestablishment of the vegetation communities and the breeding bird community they support would be achieved. The Underground Grid Connection would similarly be expected to apply measures to ensure that loss of breeding bird habitat would be reduced to a level where it would be acceptable in planning terms. Furthermore, the location of this 'other development' predominantly within the verges of the adopted highway network, would limit the potential for loss of breeding bird habitat. It would also limit the potential for physical overlap of the two developments. As the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.	No additional mitigation is considered necessary.	Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.  <b>Not Significant</b>

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Menai Science Park	Important <u>Hedgerows</u> – <b>Minor</b> Adverse (not significant) during construction.	<u>Hedgerows</u> – Not significant.	<p>Although the assessment of the Proposed Development reports a <b>minor</b> adverse residual effect on Important Hedgerows, the Menai Science Park development is reported to not have a significant effect on hedgerows, and these are not considered likely to have a cumulative effect of greater significance.</p> <p>The 'other development' is accompanied by an Ecological Appraisal that concludes that whilst on-site habitats are not of significant conservation interest, several ecological assets were present including hedgerows. Natural Resources Wales (NRW) has made suggestions in respect of features to be incorporated at detailed design stage and the IACC requires a Wildlife and Habitat Management Plan for the site. The effects of this 'other development' on hedgerows could therefore be expected to be localised and mitigated by the proposed extensive on-site landscaping incorporating ecological features aimed at increasing biodiversity, including replacing any hedgerows lost as a result of the development.</p> <p>The residual effects from the Proposed Development on hedgerows in the entirety of the Order Limits are considered <b>negligible</b> for all effects other than a <b>minor</b> adverse residual effect for the temporary loss and severance/fragmentation of Important Hedgerows. This impact is considered to be on the cusp of negligible adverse due to the small lengths of Important Hedgerows impacted by the Proposed Development and temporary nature of these impacts taking into account the proposed landscape planting. In view of the very low severity of permanent direct loss and severance and fragmentation of this habitat the Proposed Development is assessed as having a <b>negligible</b> effect (not significant) effect on the conservation status of this habitat as a result of permanent loss and fragmentation of the habitat during operation. As the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not Significant</b></p>
	<u>Ornithology (breeding birds)</u> – <b>Minor</b>	<u>Ornithology (breeding birds)</u> –	Although the assessment of the Proposed Development reports a <b>minor</b> adverse residual effect and the Menai Science Park development reports a	No additional mitigation is	Although there is likely to be

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	Adverse (not significant) during construction.	Not significant	<p>potential not significant effect on breeding birds, these are not considered likely to have a cumulative effect of greater significance.</p> <p>The 'other development' is accompanied by an Ecological Appraisal that concludes that whilst on-site habitats are not of significant conservation interest, several assets including hedgerows, scattered trees and buildings had potential to support breeding birds. NRW has made suggestions in respect of features to be incorporated at the detailed design stage and the IACC requires a Wildlife and Habitat Management Plan for the site. The effects of this 'other development' on breeding birds are therefore expected to be localised and mitigated by the proposed extensive on-site landscaping incorporating ecological features aimed at increasing biodiversity, including tree planting and retaining hedgerows and buildings that may be used by breeding birds, including potentially barn owl.</p> <p>The residual effects on the farmland, hedgerow, woodland and scrub breeding bird assemblage of species of high conservation concern in the entirety of the Order Limits are considered <b>negligible</b> for all effects other than a <b>minor</b> adverse residual effect for permanent loss of habitats as a foraging and breeding resource. This impact is considered to be on the cusp of negligible adverse due to the areas of potential permanent bird nesting habitat loss being very small at a number of locations across the Order Limits rather than a more specific loss at a specific location. As the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.</p>	considered necessary.	<p>some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not Significant</b></p>
Third Menai Crossing	<u>Ancient woodland</u> – <b>Minor</b> Adverse (not significant).	No information available	There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.	n/a	n/a
	Important <u>Hedgerows</u> – <b>Minor</b> Adverse (not significant) during construction.	No information available.	The predicted effects of the Proposed Development on potential shared receptors of ancient woodland, freshwater fish, red squirrel (areas of high quality habitat only) and ornithology (breeding birds) during construction effects	n/a	n/a

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Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	<u>Freshwater fish</u> – <b>Minor</b> Adverse (not significant).	No information available.	are assessed as <b>minor</b> adverse (not significant).  Residual effects of the Proposed Development on ancient woodland are assessed as <b>minor</b> adverse. The reasons for this are the limited areas impacted, notably narrow strips alongside existing trackways, and the poor existing quality of these areas. As the impact would need to be substantially greater than it was for a <b>moderate</b> adverse residual effect to be reported, it is considered not possible for the Proposed Development to contribute to a significant cumulative effect. This is because whilst the nearest areas of ancient woodland to this 'other development' within the Order Limits are alongside the Menai Strait and within Vaynol Park CWS within section F, as the Proposed Development would be within a tunnel at this location, these areas of ancient woodland would not be subject to direct effects. The nearest area of woodland to this 'other development' which would be directly impacted by the Proposed Development would be at the Pentir Substation. As this is Gwynedd, this area of ancient woodland is considered not functionally linked to either the Simdda-Wen or The Firs Hotel areas of ancient woodland in the north-west of Anglesey. There is therefore considered to be no potential for a cumulative effect in relation to ancient woodland.	n/a	n/a
	<u>Red squirrel</u> (areas of high quality habitat only) - <b>Minor</b> Adverse (not significant) Construction.	No information available.		n/a	n/a
	<u>Ornithology (breeding birds)</u> – <b>Minor</b> Adverse (not significant) during construction.	No information available.	The residual effects on hedgerows in the entirety of the Order Limits are considered <b>negligible</b> for all effects other than a <b>minor</b> adverse residual effect for the temporary loss and severance/fragmentation of Important Hedgerows. This impact is considered to be at the lower end of <b>minor</b> adverse due to the small lengths of Important Hedgerows impacted by the Proposed Development and temporary nature of these impacts taking into account the proposed landscape planting. In view of the very low severity of permanent direct loss and severance and fragmentation of this habitat the Proposed Development is assessed as having a <b>negligible</b> effect (not significant) effect on the conservation status of this habitat as a result of permanent loss and fragmentation of the habitat during operation. The nearest Important Hedgerow on Anglesey within the Order Limits of the Proposed Development is over 900 m from the Menai Strait. The nearest Important Hedgerow in Gwynedd within the Order Limits of the Proposed Development is over 1.3 km from the Menai Strait. As the Proposed Development would be within a tunnel	n/a	n/a



**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>in this location and there are unlikely to be any shared Important Hedgerows, it is considered the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.</p> <p>Residual effects of the Proposed Development on freshwater fish are assessed as <b>minor</b> adverse. The reasons for this are the limited to very small scale, temporary direct loss of habitat, temporary disturbance/displacement/ degradation of fish habitat during construction and small scale severance and fragmentation of fish habitat at localised locations on watercourses across the Order Limits rather than at a particular location. As such, the impacts are on very small sections of watercourse in catchments mainly not connected to those impacted by the proposed Third Menai Crossing. As the impacts are very small scale and temporary, with continuity of flow ensured throughout and clear-span bridges used where appropriate, the resulting <b>minor</b> adverse effect of the Proposed Development on freshwater fish is considered to be on the cusp of negligible adverse. As the impact would need to be substantially greater for a moderate adverse effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.</p> <p>The residual effects of construction, maintenance and decommissioning of the Proposed Development are assessed as having a <b>negligible</b> effect on the conservation status of red squirrel, which is considered of County value. The <b>minor</b> adverse effect relates to the loss of high quality habitat for red squirrel. Such areas of habitat are avoided wherever possible as part of the design process. One of the main areas for this species is in the woodlands alongside the Menai Strait. As the Proposed Development would be within a tunnel at this location, these woodlands would not be subject to direct or long term effects. As a result, impacts on areas of habitat suitable for red squirrel are restricted to substation areas where woodland would require removal and where the OHL would pass through or near to areas of woodland. The small scale extent of loss, together with the availability of alternative habitat locally, low levels of red squirrel activity found during surveys and mitigation planting which means in the long term there would be replacement habitat, means the</p>		



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Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>effect is considered to be on the cusp of negligible adverse. As the cumulative impact would need to be substantially greater in order for a <b>moderate</b> adverse effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.</p> <p>Residual effects of the Proposed Development on farmland and hedgerow bird assemblages of species of high conservation concern during construction of the Braint and Tŷ Fodol Construction Compounds and THH/CSECs are assessed as <b>negligible</b> for all effects other than a <b>minor</b> adverse effect for disturbance and displacement during construction, maintenance and decommissioning. These impacts are considered to be on the cusp of negligible adverse due to the short-term, localised and small scale nature of the impacts. These would be limited to when potentially disturbing activities are underway, which would not always be in the vicinity of this 'other development' throughout construction, maintenance and decommissioning. Maintenance activities in particular could happen at any time of year but are unlikely to have an effect on more than a short period of time during any given breeding season. There would be further limited potential for a cumulative effect with this 'other development' because the Proposed Development would be within a tunnel in the location of the nearest habitats within the Order Limits to the Menai Strait supporting breeding birds. As the cumulative impact would need to be substantially greater for a moderate adverse effect to be reported, it is therefore considered unlikely for the Proposed Development to contribute to a significant cumulative effect.</p>		
	<p><u>Other marine fish species</u> (i.e. non-migratory) - <b>Minor</b> Adverse (not significant) during construction.</p>	<p>No information available.</p>	<p>There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.</p> <p>However, due to the nature of the habitat in areas affected within the Menai Strait and localised effects, it is unlikely that high densities of other marine fish would be affected by the Proposed Development and it is therefore deemed unlikely that this would result in a significant effect in-combination with any effects of moderate (or greater) nature from the Third Menai Crossing.</p>	<p>No additional mitigation is proposed.</p>	<p><b>Not significant</b></p>

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Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Green Wire	<u>Acid grassland</u> – <b>Minor</b> Adverse (not significant) during construction.	No information available.	There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.	n/a	n/a
	<u>Acid dry heath</u> – <b>Minor</b> Adverse (not significant) during construction.	No information available.	The predicted effects of the Proposed Development on potential shared receptors of acid grassland, heathland, red squirrel (areas of high quality habitat only) and ornithology (breeding birds) during construction effects are assessed as <b>minor</b> adverse (not significant).	n/a	n/a
	<u>Red squirrel</u> (areas of high quality habitat) - <b>Minor</b> Adverse (not significant) during construction.	No information available.	A total of 1.23 ha of acid grassland was recorded inside the Order Limits and land up to 50 m beyond this boundary (referred to as the 'study area') of the Proposed Development, with 0.58 ha within the Order Limits. Of this, a very small area (0.07 ha) to the south of Pentir Substation accounted for around 12% of the total within the Order Limits. The <b>minor</b> adverse effect relates to the potential small scale temporary and permanent loss of this habitat, which is considered to be of Local value, during construction and potentially decommissioning, notably for the access track at Pentir Substation if it is not possible to avoid such loss, and temporary disturbance/ displacement/ degradation during construction, maintenance and decommissioning. This is considered to be on the cusp of negligible adverse because there would be no permanent loss of acid grassland as the area of this habitat used for the access track at Pentir Substation would be reinstated following completion of the works. Whilst reinstatement of acid grassland may be more difficult than for some other habitats, it is expected that through the application of restoration techniques based on best practice ecological principles that reestablishment of the required vegetation communities would be achieved. It is likely that the only access required at the Pentir Substation during operation and maintenance would be via the existing substation access road.	n/a	n/a
	<u>Ornithology</u> (breeding birds) - <b>Minor</b> Adverse (not significant) during construction.	No information available.	As the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.  Remnants of acid dry heath and their characteristic species have been identified within the study area of the Proposed Development (within the Order	n/a	n/a

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>Limits and land up to 50 m beyond this boundary). These remnants are on the boundaries of improved fields and within hedgerows and cloddiau indicating a previously more widespread occurrence of this habitat. The only more extensive area within the study area is in Section F to the south of Pentir Substation. The total area of this habitat within the survey area is 5.66 ha, of which 1.38 ha (25%) is within the Order Limits. Impacts of the Proposed Development on acid dry heath, which is considered to be of County value, relate to temporary disturbance/ displacement/ degradation and potential loss. The residual effect on this habitat of temporary disturbance/ displacement/ degradation has been assessed as <b>negligible</b> for all stages of the Proposed Development. The <b>minor</b> adverse effect relates to the potential small amounts of temporary loss of this habitat type during construction and potentially decommissioning, notably for the access track at Pentir Substation, and is considered to be on the cusp of negligible adverse. This is because there would be no permanent loss of acid dry heath habitat as the area of this habitat used for the access track at Pentir Substation would be reinstated following completion of the works. Whilst reinstatement of acid dry heath may be more difficult than for some other habitats, it is expected that through the application of restoration techniques based on best practice ecological principles that reestablishment of the required vegetation communities would be achieved. It is likely that the only access required at the Pentir Substation during operation and maintenance would be via the existing substation access road. There are therefore considered to be no effects during operation or maintenance. As the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.</p> <p>The residual effects of construction, maintenance and decommissioning of the Proposed Development are assessed as having a <b>negligible</b> effect on the conservation status of red squirrel, which is considered of County value. The <b>minor</b> adverse effect relates to the loss of high quality habitat for red squirrel. Such areas of habitat are avoided wherever possible as part of the design process. One of the main areas for this species is in the woodlands alongside the Menai Strait. As the Proposed Development would be within a tunnel at</p>		

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>this location, these woodlands would not be subject to direct or long term effects. As a result, impacts on areas of habitat suitable for red squirrel are restricted to substation areas where woodland would require removal and where the OHL would pass through or near to areas of woodland. Whilst there was evidence of red squirrel presence in the wider study area of Gwynedd, there was only evidence of grey squirrel in the vicinity of the Pentir Substation. Impacts on woodland at this location from the Proposed Development were therefore considered to currently not affect red squirrel. The small scale extent of loss, together with the availability of alternative habitat locally, low levels of red squirrel activity found during surveys and mitigation planting which means in the long term there would be replacement habitat, means the effect is considered to be on the cusp of negligible adverse. As the cumulative impact would need to be substantially greater in order for a <b>moderate</b> adverse effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.</p> <p>The residual effects of the Proposed Development on the shared receptor of breeding bird assemblage of species of high conservation concern at the Pentir Substation are assessed as <b>negligible</b> in relation to temporary loss of habitats during construction and/or decommissioning and temporary and permanent disturbance and displacement during construction, operation, maintenance and decommissioning. The <b>minor</b> adverse effect relates to the loss of habitat as a foraging and breeding resource for birds during operation of the Proposed Development. This impact of the Proposed Development is considered to be on the cusp of negligible adverse due to the area of potential permanent bird nesting habitat loss being very small. As areas of nesting habitat are avoided wherever possible as part of the design process, permanent loss is limited to where this habitat is within the footprint of proposed infrastructure. The expectation is that the majority of any loss of bird breeding habitat during construction and/or decommissioning would be reinstated following the completion of the works. It is also expected that through the application of restoration techniques based on best practice ecological principles that reestablishment of the vegetation communities and the breeding bird community they support would be achieved. The Green Wire development</p>		

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			would similarly be expected to apply measures to ensure that loss of breeding bird habitat would be reduced to a level where it would be acceptable in planning terms. As the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.		
Grŵp Llandrillo Menai Llangefni Campus	<u>Red squirrel</u> (areas of high quality habitat) - <b>Minor</b> Adverse (not significant) during construction.	<u>Red squirrel</u> - <b>Minor</b> Adverse (not significant) – <b>Minor</b> Beneficial (not significant).	<p>Although the assessments of both the Proposed Development and Grŵp Llandrillo Menai Llangefni Campus both report <b>minor</b> adverse residual effect on red squirrel, these are not considered likely to have a cumulative effect of greater significance.</p> <p>The 'other development' is accompanied by an ES that concludes the main impact to local red squirrel populations is considered to be the increase in traffic associated with the new development. However, survey data presented indicate that the site of this 'other development' is not a stronghold for this species with only a red squirrel observed during the breeding bird survey in woodland. Therefore, it is reported such impacts are considered unlikely and would not have a significant effect upon the local population. In addition, it is reported there is likely to be short term construction indirect impacts to red squirrels during site clearance, earth works, site enabling works and construction of this 'other development'. These impacts are all considered to be <b>minor</b> negative (adverse) within a regional context. It is further reported that the woodland within this site would be retained and could be enhanced for red squirrels by sensitive planting and management where possible. It is reported that this, together with the suggested potential enhancement of other areas of the site to attract red squirrel once the development is constructed, may result in a <b>minor</b> positive (beneficial) effect within the local context.</p> <p>The residual effects of construction, maintenance and decommissioning of the Proposed Development are assessed as having a <b>negligible</b> effect on the conservation status of red squirrel, which is considered of County value. The <b>minor</b> adverse effect relates to the loss of high quality habitat for red squirrel. Such areas of habitat are avoided wherever possible as part of the design process. One of the main areas for this species is in the woodlands alongside</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not Significant</b></p>



**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>the Menai Strait. As the Proposed Development would be within a tunnel at this location, these woodlands would not be subject to direct or long term effects. As a result, impacts on areas of habitat suitable for red squirrel are restricted to substation areas where woodland would require removal and where the OHL would pass through or near to areas of woodland. The small scale extent of loss, together with the availability of alternative habitat locally, low levels of red squirrel activity found during surveys and mitigation planting which means in the long term there would be replacement habitat, means the effect is considered to be on the cusp of negligible adverse.</p> <p>With the <b>minor</b> negative (adverse) effects of the 'other development' reported being in relation to potential increases in road traffic collisions once this development is complete and disruption during site clearance and site enabling works, and a potential <b>minor</b> positive (beneficial) residual effect reported through habitat enhancement in the long term, and the <b>minor</b> adverse effect of the Proposed Development relating solely to the loss of high quality habitat, it is considered not possible for the Proposed Development to contribute to a significant cumulative effect.</p>		
	Ornithology (breeding birds) – <b>Minor</b> Adverse (not significant) during construction.	Ornithology (breeding birds) – <b>Major/Moderate</b> Adverse (not significant) – <b>Negligible/Neutral</b> .	<p>Although the assessments of both the Proposed Development and Grŵp Llandrillo Menai Llangefni Campus report a <b>minor</b> adverse residual effect on breeding birds, these are not considered likely to have a cumulative effect of greater significance.</p> <p>The 'other development' is accompanied by an ES that concludes the main impacts to breeding birds are disturbance and loss of habitat. Short-term disturbance during site clearance, earth works, site enabling works and construction of this 'other development' is reported as likely to have a <b>major</b> negative (adverse) impact within a local context. Loss of the majority of the grassland areas on the site, together with removal of some trees and scrub resulting in the loss of nesting areas is considered to have a <b>moderate</b> negative (adverse) impact within a local context. Survey data presented indicate that the general density and diversity of the breeding bird community in the study area of this 'other development' is fairly typical of semi-rural woodland and pasture habitat adjacent to residential housing. This comprised</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not Significant</b></p>



**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>two confirmed breeding species (blackbird and robin), three probable breeding and six possible breeding species on residential sites 1 – 3 and four confirmed breeding species (blue tit, jackdaw, robin and starling), ten probable breeding and five possible breeding species on residential site 4 and hotel site 5. It is also reported that: the retention of the woodland within the site; retention and protection of boundary features; potential replacement at the earliest possible opportunity either on site within the landscape design or where possible off site of trees, scrub and grassland habitats which are to be lost; and the potential enhancement of other areas of the site to attract breeding birds once this 'other development' is constructed, may result in a <b>negligible/neutral</b> effect within the local context.</p> <p>The residual effects on the farmland, hedgerow, woodland and scrub breeding bird assemblage of species of high conservation concern in the entirety of the Order Limits are considered <b>negligible</b> for all effects other than a <b>minor</b> adverse residual effect for permanent loss of habitats as a foraging and breeding resource. This impact is considered to be on the cusp of negligible adverse due to the areas of potential permanent bird nesting habitat loss being very small at a number of locations across the Order Limits rather than at a more specific loss at a specific location. As the 'other development' is over 400 m from the Order Limits there is considered to be no overlap in nesting habitat and limited overlap in foraging habitat between the two breeding bird communities. As the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.</p>		
Dinorwig Cables	Important Hedgerows – <b>Minor</b> Adverse (not significant) during construction.	No information available.	There is insufficient information as yet about the effects of the 'other development', and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.	n/a	n/a
	<u>Acid grassland</u> – <b>Minor</b> Adverse (not significant) during	No information available.	The predicted effects of the Proposed Development on potential shared receptors of acid grassland, acid dry heath, red squirrel (in areas of high quality habitat) and ornithology (breeding birds during construction) are assessed as	n/a	n/a

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	construction.		<b>minor</b> adverse (not significant).		
	<u>Acid dry heath</u> – <b>Minor</b> Adverse (not significant) during construction.	No information available.	<p>The residual effects of the Proposed Development on hedgerows in the entirety of the Order Limits are considered <b>negligible</b> for all effects other than a <b>minor</b> adverse residual effect for the temporary loss and severance/fragmentation of Important Hedgerows. This impact is considered to be on the cusp of negligible adverse due to the small lengths of Important Hedgerows impacted by the Proposed Development and temporary nature of these impacts taking into account the proposed landscape planting. Depending on the eventual route, design and installation methodology of the proposed cable of this 'other development' there is a risk of potentially shared Important Hedgerows. However, in view of the very low severity of permanent direct loss and severance and fragmentation of this habitat the Proposed Development is assessed as having a <b>negligible</b> effect (not significant) effect on the conservation status of this habitat as a result of permanent loss and fragmentation of the habitat during operation. As the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.</p> <p>A total of 1.23 ha of acid grassland was recorded within the Order Limits and land up to 50 m beyond this boundary (referred to as the 'study area') of the Proposed Development, with 0.58 ha present within the Order Limits. Of this a very small area (0.07 ha) to the south of Pentir Substation accounted for around 12% of the total within the Order Limits. The <b>minor</b> adverse effect relates to the potential small scale temporary loss of this habitat, which is considered to be of Local value, notably for the access track at Pentir Substation if it is not possible to avoid such loss and temporary disturbance/ displacement/ degradation during construction, maintenance and decommissioning. This is considered to be on the cusp of negligible adverse. This is because there would be no permanent loss of acid grassland as the area of this habitat used for the access track at Pentir Substation would be reinstated following completion of the works. Whilst reinstatement of acid grassland may be more difficult than for some other habitats, it is expected that through the application of restoration techniques based on best practice</p>	n/a	n/a
	<u>Red squirrel</u> (areas of high quality habitat only) - <b>Minor</b> Adverse (not significant) during construction.	No information available.		n/a	n/a
	<u>Ornithology (breeding birds)</u> - <b>Minor</b> Adverse (not significant) during construction.	No information available.		n/a	n/a

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>ecological principles that reestablishment of the required vegetation communities would be achieved. It is likely that the only access required at the Pentir Substation during operation and maintenance would be via the existing substation access road. As the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect, especially as there unlikely to be a significant temporal overlap with construction of the 'other development'.</p> <p>Remnants of acid dry heath and their characteristic species have been identified within the study area of the Proposed Development (within the Order Limits and land up to 50 m beyond this boundary). These remnants are on the boundaries of improved fields and within hedgerows and cloddiau indicating a previously more widespread occurrence of this habitat. The only more extensive area within the survey area is in Section F to the south of Pentir Substation. The total area of this habitat within the survey area is 5.66 ha, of which 1.38 ha (25%) is within the Order Limits. Impacts of the Proposed Development on acid dry heath, which is considered to be of County value, relate to temporary disturbance/ displacement/ degradation and potential loss. The residual effect on this habitat of temporary disturbance/ displacement/ degradation has been assessed as a <b>negligible</b> for all stages of the Proposed Development. The <b>minor</b> adverse effect relates to the potential small amounts of temporary loss of this habitat type during construction and potentially decommissioning, notably for the access track at Pentir Substation, and is considered to be on the cusp of negligible adverse. This is because there would be no permanent loss of acid dry heath as the area of this habitat used for the access track at Pentir Substation would be reinstated following completion of the works. Whilst reinstatement of acid dry heath and may be more difficult than for some other habitats, it is expected that through the application of restoration techniques based on best practice ecological principles that reestablishment of the required vegetation communities would be achieved. It is likely that the only access required at the Pentir Substation during operation and maintenance would be via the existing substation access road. There are therefore considered to be no effects during operation or</p>		

**Table 20.9 Ecology and Nature Conservation CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>maintenance. As the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect, especially as there is unlikely to be a significant temporal overlap with construction of the 'other development'.</p> <p>The residual impacts of construction, maintenance and decommissioning of the Proposed Development are assessed as having a <b>negligible</b> effect on the conservation status of red squirrel, which is considered to be of County value. The <b>minor</b> adverse effect is relates to the loss of high quality habitat for red squirrel. Such areas of habitat are avoided wherever possible as part of the design process. One of the main areas of this species is in the woodlands alongside the Menai Strait. As the Proposed Development would be within a tunnel at this location, these woodlands would not be subject to direct or long term effects. As a result, impacts on areas of habitat suitable for red squirrel are restricted to substation areas where woodland would require removal and where the OHL would pass through or near to areas of woodland. The small scale extent of loss, together with the availability of alternative habitat locally, low levels of red squirrel activity found during surveys and mitigation planting which means in the long term there would be replacement habitat, means the effect is considered to be on the cusp of negligible adverse. As the cumulative impact would need to be substantially greater in order for a moderate adverse effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect, especially as there is unlikely to be a significant temporal overlap with construction of the 'other development'.</p> <p>The residual effects of the Proposed Development on the shared receptor of breeding bird assemblage of species of high conservation concern at the Pentir Substation are assessed as <b>negligible</b> in relation to temporary loss of habitats during construction and/or decommission and temporary and permanent disturbance and displacement during construction, operation, maintenance and decommissioning. The <b>minor</b> adverse effect relates to the loss of habitat as a foraging and breeding resource for birds during operation of the Proposed Development. This impact of the Proposed Development is considered to be on the cusp of negligible adverse due to the area of potential permanent bird</p>		

Table 20.9 Ecology and Nature Conservation CEA

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			nesting habitat loss being very small. As areas of nesting habitat are avoided wherever possible as part of the design process, permanent loss is limited to where this habitat is within the footprint of proposed infrastructure. The expectation is that the majority of any loss of bird breeding habitat during construction and/or decommissioning would be reinstated following the completion of works. It is also expected that through the application of restoration techniques based on best practice ecological principles that reestablishment of the vegetation communities and the breeding bird community they support would be achieved. The Dinorwig Cables development would be expected to similarly apply measures to ensure that loss of breeding bird habitat would be reduced to a level where it would be acceptable in planning terms. As the cumulative impact would need to be substantially greater than it was for a moderate adverse residual effect to be reported, it is considered unlikely for the Proposed Development to contribute to a significant cumulative effect.		



*Historic Environment*

**Table 20.10 Historic Environment CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Wylfa Newydd Power Station	<u>Standing Stones Scheduled Monument (AN 030)</u> - <b>Minor</b> Adverse (not significant) during construction and operation phases.	<u>Standing Stones Scheduled Monument (AN 030)</u> - <b>Minor</b> Adverse (not significant) during construction and operation phases.	A combination of the Wylfa Newydd Power Station and the new OHL would increase and intensify the visibility of modern energy infrastructure in views across a broad arc from the north to the south-east. The cumulative effect of the two developments together would result a <b>moderate</b> adverse (Significant) effect during construction and operation phases.	There are no additional mitigation measures available that would reduce the significance of this effect.	<b>Significant</b>
	<u>Standing Stone 410 m North of Church Scheduled Monument (AN 080)</u> - <b>Minor</b> Adverse (not significant) during construction and <b>Moderate</b> Adverse (significant) during operation.	<u>Standing Stone 410 m North of Church Scheduled Monument (AN 080)</u> - <b>Minor</b> Adverse (not significant) during construction and operation phases.	The <b>moderate</b> adverse (significant) effect of the operational Proposed Development would result largely from the close proximity of the proposed OHL to the monument. Construction and operation of Wylfa Newydd Power Station would be at a greater distance away and would not add to this effect within the immediate context of the monument; though the <b>moderate</b> effect of the Proposed Development alone would remain. For the same reason the <b>minor</b> adverse effect (not significant) during construction would not add to the <b>minor</b> adverse effect (not significant) of Wylfa Newydd Power Station during its construction therefore no significant cumulative effects would be likely.	There are no additional mitigation measures available that would reduce the significance of this effect.	Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately. <b>Not significant</b>
Rhyd-y-Groes Re-power	<u>Llifad, Carreglefn Scheduled Monument (AN 079)</u> - <b>Minor</b> Adverse (not significant) during operation.	<u>Llifad, Carreglefn Scheduled Monument (AN 079)</u> - <b>Moderate/ Minor</b> Adverse (not significant) during construction and operation.	Both developments would result in <b>minor</b> adverse effects, but it is considered that the combination of the two would not give rise to a significant cumulative effect as they are sufficiently separated that the combined change in view of and from this monument would not be significant.	None.	<b>Not significant</b>
	<u>Standing Stone 410 m North of Church</u>	<u>Standing Stone 410 m North of Church</u>	The Proposed Development would result in a significant effect on the Standing Stone 410 m North of Church Scheduled Monument (AN 080) and the	There are no additional	<b>Not significant</b>



**Table 20.10 Historic Environment CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	<u>Scheduled Monument (AN 080)</u> - <b>Minor</b> Adverse (not significant) during construction and <b>Moderate</b> Adverse (significant) during operation.	<u>Scheduled Monument (AN 080)</u> - <b>Moderate/ Minor</b> Adverse (not significant).	<b>moderate/minor</b> adverse (not significant) effect of the Rhyd-y-Groes Wind Farm would not increase this significantly as the effect of the Proposed Development derives from the very close proximity of the nearest new pylon. As the Rhyd-y-Groes Wind Farm is more distant it would not add to the effect on the immediate and close setting of the monument.	mitigation measures available that would reduce the significance of this effect.	
	<u>Pen-y-Morwyd Round Barrow Scheduled Monument (AN 110)</u> - <b>Minor</b> Adverse (not significant) during operation.	<u>Pen-y-Morwyd Round Barrow Scheduled Monument (AN 110)</u> – <b>Moderate/ Minor</b> Adverse (not significant).	The <b>minor</b> and <b>moderate/ minor</b> adverse effect of the developments would not result in a significant cumulative effect. The effect of the Proposed Development derives from changes in views from and to this asset across the OHL, introducing a change to views where there is indivisibility with other monuments, particularly AN030 and AN080. Rhyd-y-Groes Wind Farm would be located to the north and would not add to this effect.	None.	<b>Not significant</b>
	<u>Standing Stones Scheduled Monument (AN 030)</u> - <b>Minor</b> Adverse (not significant) during construction and operation phases.	<u>Standing Stones Scheduled Monument (AN 030)</u> - <b>Moderate/ Minor</b> Adverse (not significant).	The <b>minor</b> and <b>moderate/ minor</b> adverse effect of the developments would not result in a significant cumulative effect. As above, the effect of the Proposed Development derives from changes in views from and to this asset across the OHL, introducing a change to views where there is indivisibility with other monuments, particularly AN110 and AN080. Rhyd-y-Groes Wind Farm would be located to the north and would not add to this effect.	None.	<b>Not significant</b>
Underground Grid Connection between Glyn Rhonwy Pumped Storage Development and Pentir Substation	<u>Dinorwig Landscape of Outstanding Historic Interest</u> - <b>Minor</b> Adverse (not significant).	No information available.	There would be a potential for a slight cumulative effect on the Dinorwig Landscape of Outstanding Historic Interest. This would derive from the cumulative area of ground disturbance, though there would be no cumulative effects on settings other than potential short-term effects during construction, dependant on timings. Given that it would be an underground connection, and given that the extent of disturbance would represent only a small proportion of the historic character areas through which it would pass, this would not be expected to give rise to a significant cumulative effect.	None	<b>Not significant</b>

**Table 20.10 Historic Environment CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Third Menai Crossing	<u>Plas Newydd Registered Park and Garden (RPG GD48)</u> – <b>Negligible</b> (Not Significant).	No information available.	There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.	None.	<b>Not significant</b>
	<u>Vaynol Registered Park and Gardens (RPG and GD52)</u> – <b>Negligible</b> (Not Significant).	No information available.	However, for those assets most likely to be affected by the Third Menai Crossing, effects as a result of the North Wales Connection Project are greatly limited by the use of a tunnel beneath the Menai Strait. No significant cumulative effect is therefore anticipated as a result of a combination of these developments.	None.	<b>Not significant</b>
Green Wire	<u>Tŷ'n Llwyn Farm and farm buildings Grade II Listed Buildings (LB 83283, 83284, 83281, 83282, 83169, 83280, 83170, 83279, 83285)</u> – <b>Minor</b> Adverse (not significant) during construction.	No information available.	There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.  It is considered that there is some potential for an overall increased effect on the setting of the listed buildings at Tŷ'n Llwyn Farm (9 Grade II Listed buildings) as a result of development of the Green Wire site cumulatively with the southern extension to Pentir Substation. However this would be temporary during the construction phase.	None.	<b>Not significant</b>
	<u>Dinorwig Landscape of Outstanding Historic Interest</u> – <b>Minor</b> Adverse (not significant).	No information available.	There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.  Given the extent of potential disturbance resulting from the two developments, this would represent only a small proportion of the historic character areas through which it would pass; as a result this would not be expected to give rise to a significant cumulative effect.	None.	<b>Not significant</b>

**Table 20.10 Historic Environment CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Llanbadrig Solar Farm	<u>Pen-y-Morwyd Round Barrow Scheduled Monument (AN 110)</u> - <b>Minor</b> Adverse (not significant) during operation.	<u>Pen-y-Morwyd Round Barrow Scheduled Monument (AN 110)</u> – <b>Moderate/ Minor</b> Adverse (not significant).	The <b>minor</b> and <b>moderate/ minor</b> adverse effect of the developments would not result in a significant cumulative effect. The effect of the Proposed Development derives from changes in views from and to this asset across the OHL, introducing a change to views where there is indivisibility with other monuments, particularly AN030 and AN080. Llanbadrig Solar Farm would be located to the north and would not add to this effect.	None.	<b>Not significant</b>
Dinorwig Cables	<u>Dinorwig Landscape of Outstanding Historic Interest</u> – <b>Minor</b> Adverse (not significant).	No information available.	There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.  There would be a potential for a slight cumulative effect on the Dinorwig Landscape of Outstanding Historic Interest. This would derive from the cumulative area of ground disturbance, though there would be no cumulative effects on settings other than potential short-term effects during construction, dependant on timings. Given that it would be an underground connection, and given that the extent of disturbance would represent only a small proportion of the historic character areas through which it would pass, this would not be expected to give rise to a significant cumulative effect.	None.	<b>Not significant</b>

*Water Quality, Resources and Flood Risk*

**Table 20.11 Water Quality, Resources and Flood Risk**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Third Menai Crossing	<p><u>Braint Upper and Nant y Garth WFD river water bodies (GB110102058690 and GB110065058490):</u> <b>Minor</b> Adverse (not significant) during construction and decommissioning associated with culvert crossings affecting channel morphology.</p>	No information available.	<p>There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.</p> <p>Braint Upper WFD river water body: The existing Junction 8A of the A55 lies on the catchment boundary with the non-reportable water body to the north of the Menai Strait. The junction options for the Third Menai crossing are at a similar location or to the east of the existing junction. They extend in to the non-reportable waterbody, outside the Braint Upper waterbody boundary, and do not appear, from the information available, to cross any watercourses.</p> <p>Nant y Garth WFD river water body: Existing junction 9 lies on the catchment boundary with the non-reportable waterbody to the south of the Menai Strait. The available information indicates that the junction would be modified but does not illustrate how or where, so it is assumed that the junction would remain in the same place but may be reconfigured. Given its location it is unlikely that localised alterations to the junction would necessitate crossing any watercourses. If any crossings were required, they would be in the headwaters of the northern tributary of the Nant y Garth (the Heulyn).</p> <p>Braint Upper WFD river water body: Given the likely minimal interaction between the Third Crossing and the catchment of the Braint Upper water body, significant cumulative effects are considered unlikely.</p> <p>Nant y Garth WFD river water body: Any interactions between the Third Crossing and the catchment of the Nant y Garth water body would be likely to be <b>minor</b>, and, whilst located in the same WFD water body catchment as the Proposed Development, would be on a different watercourse compared to the Proposed Development. As a result, significant cumulative effects are considered unlikely.</p>	None.	<b>Not significant.</b>

*Traffic and Transport*

**Table 20.12 Traffic and Transport CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Wylfa Newydd Power Station	<u>Link 1</u> – <b>Minor</b> Adverse effects (not significant) for Severance and Fear and Intimidation.	<u>Link 1</u> – Traffic flow and composition effects are <b>Moderate</b> Adverse on sections of Link 1 that would not benefit from transfer of traffic as a result of the proposed A5025 offline improvements,  Traffic flow and composition effects range from <b>Moderate to Major</b> Beneficial on sections of Link 1 on the existing route alignment of the A5025 that would benefit from transfer of traffic as a result of the proposed A5025 offline improvements.	Link 1 has been assumed a Medium sensitivity. This assumed sensitivity does not take into consideration the proposed A5025 improvement schemes being put forward by the developer Horizon Nuclear Power to enable Wylfa Newydd Power Station. If these works were to be completed prior to the construction of the Proposed Development then the assumed sensitivity for Link 1 could be reduced to Low, due to the alignment of Link 1 routeing further from built environment indicators which are adjacent to the existing alignment.  Based on Medium sensitivity, Link 1 is anticipated to have <b>minor</b> effects for Severance and Fear and Intimidation as a result of the Proposed Development. Were this <b>minor</b> effect to coincide with the <b>moderate</b> adverse effect on traffic flow and composition as a result of the combined elements of the Wylfa Newydd Power Station, there are likely to be cumulative effects.	No additional mitigation is required other than the proposed Online and Offline highway improvement works on the A5025 (Link 1) associated with the Wylfa Newydd Power Station.	With the mitigation in place the Proposed Development effects would reduce from <b>Minor</b> to <b>Negligible</b> , therefore cumulative effects would not be significant,  <b>Not Significant</b>
Greenwire	<u>Link 19</u> – <b>Minor</b> Adverse effects (not significant) for Severance and Fear and Intimidation  <u>Link 20</u> – <b>Minor</b> Adverse effects (not significant) for Severance, Pedestrian Delay and Fear and Intimidation.	No information available.	It is considered that the effects associated with the Greenwire development are unlikely to exceed <b>negligible</b> for traffic effects therefore it is unlikely to contribute to a significant cumulative effect.	No additional mitigation is considered to be necessary	<b>Not significant</b>



**Table 20.12 Traffic and Transport CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Grŵp Llandrillo Menai Llangefni Campus	<p><u>Link 6</u> – <b>Minor</b> Adverse effects (not significant) for Severance, Pedestrian Delay and Fear and Intimidation.</p> <p><u>Link 8.2</u> – <b>Minor</b> Adverse effects (not significant) for Severance and Fear and Intimidation.</p>	Whilst construction phases may overlap, no construction traffic information is known for the other development.	<p>There would be a potential for cumulative construction traffic effects on shared links if construction occurred concurrently. Given that the Proposed Development has predicted minor effects on the shared links potential cumulative effects would not be expected to give rise to a significant cumulative effect.</p> <p>Operational flows arising from the development are included in the future baseline, therefore the assessment is inherently cumulative.</p>	No additional mitigation is considered to be necessary	<b>Not significant</b>
Dinorwig Cables	<p><u>Link 19</u> – <b>Minor</b> Adverse effects (not significant) for Severance and Fear and Intimidation</p> <p><u>Link 20</u> -<b>Minor</b> Adverse effects (not significant) for Severance, Fear and Intimidation and Pedestrian Delay.</p>	No information available.	Effects associated with the Dinorwig Cables development are unlikely to exceed <b>negligible</b> for traffic effects therefore it is unlikely to contribute to a significant cumulative effect.	No additional mitigation is considered to be necessary	<b>Not significant</b>



*Air Quality*

**Table 20.13 Air Quality CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Wylfa Newydd Power Station	<p><u>Human health, dust and ecological receptors</u> -</p> <p><b>Negligible (not significant)</b> effects predicted at shared receptors located adjacent to link 1, link 2 and link 21.</p>	<p>The air quality effect of the other development is not quantified in isolation.</p>	<p>The Proposed Development contributes 1%, 1% and &lt;1% of the LGV cumulative AADT flow on Link 1, Link 2 and Link 21 respectively, and 9%, 8% and 7% of the HGV cumulative AADT flow respectively.</p> <p>However, the other development contributes 37%, 23% and 5% of the LGV cumulative AADT flow on Link 1, Link 2 and Link 21 respectively, and 53%, 51% and 9% of the HGV cumulative AADT flow respectively.</p> <p>Consideration of cumulative effects, assuming other development traffic flows are in both the future baseline and construction phase scenario, results in <b>Negligible</b> and insignificant effects predicted at shared human health and ecological receptors located adjacent to Link 1, Link 2 and Link 21 (and other A55 links considered).</p> <p>Consideration of cumulative effects, assuming other development traffic flows are just in the construction phase scenario only, results in a <b>minor</b> adverse effect at human health sensitive receptors located adjacent to Link 1 (Section A), and a <b>negligible</b> effect at human health sensitive receptors located adjacent to Link 21 (and other A55 links), which are not considered to be significant.</p> <p>At ecological receptors, assuming the impacts of the other development traffic flows are in both the future baseline and construction phase scenario, impacts can be screened as insignificant (i.e. the effect is not significant). Assuming the other development traffic flows are just in the construction phase scenario only, impacts cannot be screened as insignificant for annual mean nutrient nitrogen deposition at Beddmanarch-Cymyran SSSI, adjacent to Link 1 (Section A) and Coedydd Afon Menai SSSI, adjacent to Link 21 (Section F), where deposition rates already exceed the lower Critical Load in the future baseline. Total deposition rates with the cumulative impact at Beddmanarch-Cymyran SSSI remain below the upper Critical Load value for this habitat. Impacts cannot be screened as insignificant for annual mean concentrations of NOX at Cors Ddyga SSSI (Section D) or Coedydd Afon Menai SSSI (Section F). However, at these locations, total NOX concentrations, with the cumulative impact, remain below</p>	<p>No additional mitigation proposed.</p>	<p><b>Negligible to Minor</b> adverse. <b>Not significant.</b></p>

**Table 20.13 Air Quality CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>the air quality objective value.</p> <p>The contribution of the Proposed Development to the cumulative effects reported is temporary and would last for the duration of the Proposed Development construction phase only.</p>		
Glyn Rhonwy Pumped Storage	<p><u>Human health receptors</u></p> <p><b>Negligible</b> effects predicted at shared receptors located adjacent to Link 18.</p>	<p>The air quality effect of the other development is not quantified in isolation.</p>	<p>The Proposed Development contributes 1% of the LGV cumulative AADT on Link 18, and 7% of the HGV cumulative AADT. However, the other development contributes 4% of the LGV cumulative AADT on Link 18, and 12% of the HGV cumulative AADT.</p> <p>Consideration of cumulative effects, assuming other development traffic flows are in both the future baseline and construction phase scenario, results in <b>negligible</b> effects predicted at shared receptors located adjacent to Link 18.</p> <p>Consideration of cumulative effects, assuming other development traffic flows are in both the construction phase scenario only also results in <b>negligible</b> effects at the human health sensitive receptors located adjacent to Link 18.</p> <p>The contribution of the Proposed Development to the cumulative effects reported is temporary and would last for the duration of the Proposed Development construction phase only.</p>	<p>No additional mitigation proposed.</p>	<p><b>Negligible</b> <b>Not significant.</b></p>

*Construction Noise and Vibration*

Table 20.14 Construction Noise and Vibration CEA					
Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Wylfa Newydd Power Station	<u>Residential receptors</u> – <b>Major/Moderate</b> Adverse effects (significant) at five shared residential receptors. <b>Minor</b> Adverse effects (not significant) at 18 shared residential receptors.	<u>Residential receptors</u> – <b>Major/Moderate/Minor</b> Adverse effects at up to 154 shared residential receptors <sup>6</sup> .	Details of effects at individual receptor locations for Wylfa Newydd Power Station are not available. Therefore, it is not possible to determine precisely where effects would coincide. However, as effects from Wylfa are mainly <b>major/moderate</b> adverse and effects from the Proposed Development are mainly <b>minor</b> adverse, it is likely that cumulative effects could occur and would be <b>major/moderate</b> adverse in places, but this would be mainly due to construction noise and vibration from Wylfa Newydd Power Station.	At receptors that are subject to cumulative noise and vibration effects from the Proposed Development and Wylfa Newydd Power Station, Wylfa Newydd Power Station contributes more to the noise levels than the Proposed Development. Furthermore, works from the Proposed Development are likely to be for a relatively short duration. Therefore no additional mitigation measures are planned for the Proposed Development to reduce the significance of effects.	<b>Significant.</b>
	<u>Care/nursing home</u> – <b>Minor</b> Adverse effects (not significant) at one shared receptor.	<u>Care/nursing home</u> – <b>Major/Moderate</b> Adverse effects at one shared receptor <sup>3</sup> .			
	<u>Caravans/chalets</u> – <b>Minor</b> Adverse effects (not significant) at three shared receptors.	<u>Caravans/ chalets/ holiday lets/ campsite</u> – <b>Major/Moderate/Minor</b> Adverse effects at up to seven shared caravans/ chalets/ holiday lets/ campsite <sup>3</sup> .			
		<u>Commercial receptors</u> – <b>Moderate/Minor</b> Adverse effects at up			

<sup>6</sup> Note that these are the maximum potential shared effects, and effects may be lower as individual receptors are not identified in the noise assessments for Wylfa Newydd Power Station.

**Table 20.14 Construction Noise and Vibration CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
		to five shared commercial receptors <sup>3</sup> .			
Underground Grid Connection between Glyn Rhonwy Pumped Storage Development and Pentir Substation	<u>Residential receptors</u> – <b>Moderate</b> Adverse effect at one residential receptor. <b>Minor</b> Adverse (not significant) effect at one residential receptor.	No information available.	A detailed assessment of construction noise and vibration of the Underground Grid Connection works has not been undertaken. However the works would be subject to a CEMP. With these controls in place it is anticipated that the construction noise and vibration effects would be no greater than <b>minor</b> .	There is a <b>moderate</b> effect from the Proposed Development that is unlikely to be increased by the other development. For the remaining common receptors the mitigation applied to each development is likely to be sufficient to ensure that combined effects remain as minor. Therefore no additional mitigation should be required.	<b>Not significant.</b>
	<u>Caravans/holiday let</u> – <b>Minor</b> Adverse (not significant) effects at two caravans and one holiday let.	No information available.	The effects from the Proposed Development are <b>moderate/minor</b> . The receptor at which a <b>moderate</b> effect would occur is some 600 m from Underground Grid Connection, so it is unlikely that this effect would be increased with the two developments. The locations at which a <b>minor</b> effect from the Proposed Development would occur are all some 400 m to 600 m from the Underground Grid Connection so it is unlikely that the effect level would increase from <b>minor</b> .		<b>Not significant.</b>
Dinorwig Cables	<u>Residential receptors</u> – <b>Minor</b> Adverse (not significant) effects at two residential receptors.	No information available.	There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.	n/a	<b>Not significant.</b>
	<u>Caravans/holiday let</u> – <b>Minor</b> Adverse (not significant) effects at two caravans and one holiday let.	No information available.	There is potential for <b>moderate</b> effects, although it is more likely that effects would be <b>minor</b> . The potential for Dinorwig construction to align precisely with that of the Proposed Development, in respect of these specific works at this location, are relatively low and as a result significant cumulative effects are considered to be unlikely.	n/a	<b>Not significant.</b>

Operational Noise

Table 20.15 Operational Noise CEA					
Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Green Wire	<u>Ty'n Llwyn R5/10846</u> – <b>Minor</b> Adverse (not significant) effects	No information available.	No potentially significant or significant effects predicted at nearby receptors from the Proposed Development.  There is insufficient information as yet about the effects of the other development and, as such, the potential cumulative effects with the Proposed Development during the worst-case night time period would need to be a consideration during the relevant assessment and consenting for that development.	n/a	n/a
	<u>Fferm Cae Sgubor R5/11098</u> – <b>Minor</b> Adverse (not significant) effects	No information available.	The assessment of Operational Noise for the Proposed Development is based on night time noise and very low baseline sound levels to ensure a worst-case, precautionary approach to assessment. It is not anticipated that construction activity would take place at night, therefore a cumulative effect due to construction of the other development during the night-time is unlikely.  During the day time, any effect due to the Proposed Development is likely to be <b>negligible</b> due to higher baseline sound levels and also the fact that absolute noise levels due to the Proposed Development would be low. Noise from construction or operation of Green Wire may result in a cumulative effect at the nearest receptors during the daytime. However, as the absolute noise levels would be low, the contribution from the Proposed Development would be low, and therefore this is unlikely to result in an overall increased effect at receptors.	n/a	n/a
Dinorwig Cables	<u>Ty'n Llwyn R5/10846</u> – <b>Minor</b> Adverse (not significant) effects	No information available.	No potentially significant or significant effects predicted at nearby receptors from the Proposed Development.  There is insufficient information as yet about the effects of the other development and, as such, the potential cumulative effects with the Proposed Development during the worst-case night time period would need to be a consideration during the relevant assessment and consenting for that development.	n/a	n/a
	<u>Fferm Cae Sgubor R5/11098</u> – <b>Minor</b> Adverse (not significant) effects	No information available.	The assessment of Operational Noise for the Proposed Development is based on night time noise and very low baseline sound levels to ensure a	n/a	n/a

Table 20.15 Operational Noise CEA

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>worst-case, precautionary approach to assessment. It is not anticipated that construction activity would take place at night, therefore a cumulative effect due to construction of the other development during the night-time is unlikely.</p> <p>During the day time, any effect due to the Proposed Development is likely to be <b>negligible</b> due to higher baseline sound levels and also the fact that absolute noise levels due to the Proposed Development would be low. Noise from construction or operation of Dinorwig Cables may result in a cumulative effect at the nearest receptors during the daytime. However, as the absolute noise levels would be low, the contribution from the Proposed Development would be low, and therefore this is unlikely to result in an overall increased effect at receptors.</p>		



*Socio-Economics*

**Table 20.16 Socio Economics CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Wylfa Newydd Power Station	<u>Community amenity:</u> <b>Minor</b> Adverse for Tregle during construction.	<u>Community amenity:</u> <b>Major</b> Adverse effects for Tregle are anticipated during construction and operation.	The <b>minor</b> adverse effect on Tregle from the Proposed Development during construction is largely as a result of visual effects ( <b>moderate</b> adverse) and so have the potential to combine with the Wylfa Newydd Power Station effects. Visual effects from the Proposed Development are unlikely to be sufficient to result in a change in significance when the two developments are considered cumulatively. The overall cumulative effect is assessed as <b>minor</b> adverse.	No additional mitigation is considered necessary.	Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately. <b>Not Significant</b>
	<u>Tourism accommodation (excluding caravan and camping accommodation):</u> Adverse ( <b>not significant</b> ) during construction.	<u>Tourism accommodation (excluding caravan and camping accommodation):</u> <b>Minor</b> Adverse (not significant) during construction.	As shown in Appendix 17.2 ( <b>Document 5.17.2.2</b> ), peak demand for tourism accommodation during construction of the Proposed Development would be 71 (excluding caravan and camping accommodation), compared to headroom of 1,522 (4.6%). It is concluded that the peak construction workforce associated with the Proposed Development could be accommodated without placing significant demand on the existing tourism accommodation stock within the Travel to Work Area (TTWA).  For Wylfa Newydd Power Station, it is estimated that the majority of the demand for tourism accommodation would be in Anglesey North and Anglesey West. Based on the available capacity in these areas, <b>no adverse effects</b> on availability are predicted. Nonetheless, it is recognised that uncontrolled access to this stock could create some localised effects. Based on this uncertainty and the sensitivity of this stock.  Take up of headroom would increase from 15% to 17% when the two developments are considered cumulatively. The cumulative effect on tourism accommodation in Anglesey north and Anglesey west is assessed as <b>minor</b> adverse.	No additional mitigation is considered necessary.	Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately. <b>Not significant</b>
	<u>Tourism accommodation (Camping and</u>	<u>Tourism accommodation (Camping and</u>	Peak demand for caravan and camping accommodation during construction of the Proposed Development would be 160, compared to headroom of 4,774 (3.4%). It is concluded that the peak construction	No additional mitigation is	Although there is likely to be some cumulative effect,

**Table 20.16 Socio Economics CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	<u>caravanning accommodation</u> : Adverse ( <b>not significant</b> ) during construction.	<u>caravanning accommodation</u> : Adverse ( <b>not significant</b> ) during construction.	workforce associated with the Proposed Development could be accommodated without placing significant demand on the existing tourism accommodation stock within the TTWA. As such, effects on tourism accommodation are assessed as <b>not significant</b> .  Expected demand for camping and caravan accommodation across the Key Socio-Economic Study Area (KSA) for Wylfa Newydd Power Station is 650 bed spaces, equivalent to 20% of headroom. As such, significant effects on the availability of camping and caravan accommodation are not expected (no conclusion was drawn as to whether the effect is <b>negligible</b> or <b>minor</b> ).  When the two developments are considered cumulatively, the take up of caravanning and camping headroom would increase from 20% to 25%. On this basis, significant cumulative effects are not expected.	considered necessary.	the overall significance is unlikely to be any greater than the effects considered separately.  <b>Not significant</b>
	<u>Private rented sector</u> : Adverse (not significant) during construction.	<u>Private rented sector</u> : <b>Minor</b> Adverse (not significant).	As a worst case it is estimated that 22% of the construction workforce would take up accommodation in the Private Rented Sector (PRS), equivalent to 100 workers. Considering that construction workers are highly likely to share accommodation, the number of properties required is likely to be substantially lower than 100. On this basis, it is highly unlikely that workers taking up accommodation in the PRS would impact on the functioning of the market.  The assessment for Wylfa Newydd Power Station concludes that the peak construction workforce could absorb around 55% of the estimated capacity within the PRS. In acknowledgement of potential local constraints on this sector, the residual effect of the Wylfa Newydd Power Station on PRS accommodation stock in the KSA during construction is assessed as <b>minor</b> adverse.  Based on headroom in the KSA, this would increase uptake of PRS capacity from 55% to 61%. Given that demand would still be within the available headroom, the overall cumulative effect on the PRS is considered to be <b>minor</b> adverse	No additional mitigation is considered necessary.	Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.  <b>Not significant</b>
	<u>Visitor numbers</u> : Adverse (not	<u>Visitor numbers</u> : <b>Minor</b> Adverse (not	The potential for an effect on visitor numbers and behaviour during construction and operation of the Proposed Development is recognised but	No additional mitigation is	Although there is likely to be some

**Table 20.16 Socio Economics CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	significant) during construction and operation.	significant).	<p>on the basis of the available evidence it is considered unlikely that this effect would be realised.</p> <p>The assessment for the Wylfa Newydd Power Station recognises that the destination brand of Anglesey could be affected by the Wylfa Newydd Power Station. A Tourism Fund is proposed as mitigation as a measure to support the Anglesey tourism sector in terms of destination management.</p> <p>Based on the available evidence, it is considered unlikely that the two developments would combine to create a significant effect on visitor numbers; the overall cumulative effect on visitor numbers is therefore considered to remain <b>minor</b> adverse.</p>	considered necessary.	<p>cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>
	<u>Employment:</u> Beneficial (not significant) during construction.	<u>Employment:</u> <b>Major</b> Beneficial (significant) during construction and operation.	<p>The peak workforce for the Proposed Development is expected to be in the region of 450 workers, with an approximate monthly average of 218 workers throughout the construction program. Considering that total employment in Anglesey and Gwynedd is in the region of 85,000, the Proposed Development would attract 0.033% of total employment.</p> <p>During construction and operation, changes to employment in the construction sector in the Daily Construction Commuting Zone (DCCZ) resulting from the Wylfa Newydd Power Station are assessed to be <b>major</b> beneficial.</p> <p>Given that the Proposed Development is assessed to have no significant effect on employment, the overall cumulative effect is also assessed as <b>major beneficial</b>, although it is acknowledged that the majority of this benefit would be derived from Wylfa Newydd Power Station.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Significant</b></p>
	<u>Expenditure and supply chain:</u> Beneficial (not significant) during construction.	<u>Expenditure and supply chain:</u> <b>Moderate</b> Beneficial	<p>During construction, total expenditure on the Proposed Development is expected to be in the region of £600 million. An estimated £63 million is expected to be contributed to the local economy. Given that the Gross Value Added (GVA) for Anglesey and Gwynedd is in the region of £3.3 billion per annum (Ref 17.54), this represents an overall increase in GVA of 1.9% for a single year of construction</p> <p>Given that the Proposed Development is assessed to have a beneficial effect (not significant) on expenditure and supply chain, the overall</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered</p>

**Table 20.16 Socio Economics CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			cumulative effect is also assessed as <b>moderate</b> beneficial. It is acknowledged that the majority of this benefit would be derived from Wylfa Newydd Power Station.		separately. <b>Significant</b>
Wylfa Nuclear Power Station Decommissioning.	<u>Employment:</u> Beneficial (not significant) during construction.	<u>Employment:</u> <b>Major</b> Adverse during decommissioning with the residual significance assumed to be <b>Minor</b> Adverse (not significant).	<p>The peak workforce for the Proposed Development is expected to be in the region of 450 workers with an average of 218 workers per month throughout the construction programme. Applying the assumption that 10% of workers are local, the number of jobs filled locally is 22. Applying a multiplier of 1.3 for additionality, the total number of direct and indirect jobs filled from the local resident workforce is 28. Considering that total employment in Anglesey and Gwynedd is in the region of 85,000, the Proposed Development would attract 0.033% of total employment.</p> <p>The decommissioning of the power station would result in the loss of 689 staff (589 staff and 100 contractors) and could result in the loss of a further 108 full time equivalent jobs elsewhere from the local economy. However, employees are expected to be redeployed to other large-scale developments within Anglesey, thereby reducing the effect.</p> <p>As the effect of the Proposed Development is beneficial, whereas the effect of the decommissioning is adverse, there could theoretically be a cumulative reduction in the effects of the decommissioning project; however, the employment generated by the Proposed Development is considered too small to reduce the overall significance. During construction, the cumulative effect on employment is therefore assessed as <b>minor</b> adverse.</p> <p>No cumulative effects are anticipated during operation.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>
Penrhos Leisure Village	<u>Employment:</u> Beneficial (not significant) during construction.	<u>Employment:</u> Significant beneficial effect during construction.	<p>On average, 218 workers per month would be required on the Proposed Development throughout the construction programme. The total of direct and indirect jobs filled by locals is 28. Considering that total employment in Anglesey and Gwynedd is in the region of 85,000, the Proposed Development would only attract 0.033% of total employment.</p> <p>The construction of the leisure village would sustain approximately 420 construction jobs each year, of which 110-170 would be employed locally.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered</p>



**Table 20.16 Socio Economics CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>Given that the Proposed Development concludes beneficial effects (not significant) and the Penrhos Leisure Village also concludes beneficial effects, there could theoretically be a beneficial cumulative effect.</p> <p>However, during construction, based on the best case of 170 workers employed locally in Penrhos, the overall employment (28+170) of the two developments combined is expected to provide only 0.23% of the total employment in the regions of Anglesey and Gwynedd.</p> <p>Therefore, the cumulative effects are considered not significant.</p>		<p>separately.</p> <p><b>Not significant</b></p>
	<p><u>Expenditure and supply chain:</u> Beneficial (not significant) during construction.</p>	<p><u>Expenditure and supply chain:</u> Beneficial</p>	<p>During construction, an estimated £63 million is expected to be contributed to the local economy. Given that the GVA for Anglesey and Gwynedd is in the region of £3.3 billion per annum (Ref 17.54), this represents an overall increase in GVA of 1.9% for a single year of construction</p> <p>It is expected that construction of the leisure village would benefit the supply chain, particularly for construction materials and services, with up to 40% of all construction expenditure benefiting local construction contractors (Ref 17.58).</p> <p>Similarly, an estimated £7.7m per year is expected to be generated within the local economy by the residents of the new residential housing development.</p> <p>Given that the Proposed Development concludes beneficial effects (not significant) and the Penrhos Leisure Village concludes beneficial effects, there could theoretically be a beneficial cumulative effect.</p> <p>However, during construction, in the context of a total £3.3 billion per annum GVA in Anglesey and Gwynedd, increase in GVA as a result of the two schemes combined is unlikely to be significant. Therefore, the cumulative effects on the economy are considered to be not significant.</p>	<p>No additional mitigation is considered necessary.</p>	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>
Anglesey Eco Park	<p><u>Employment:</u> Beneficial (not significant) during construction.</p>	<p><u>Employment:</u> Beneficial.</p>	<p>On average, 218 workers per month would be required on the Proposed Development throughout the construction programme. The total of direct and indirect jobs filled by locals is 28. Considering that total employment in Anglesey and Gwynedd is in the region of 85,000, the Proposed</p>	<p>No additional mitigation is considered necessary.</p>	<p>Although there is likely to be some cumulative effect, the overall significance is</p>

**Table 20.16 Socio Economics CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>Development would only attract 0.033% of total employment.</p> <p>Limited information about the Eco Park development is available; however, it is expected that during construction 800 to 1,000 jobs would be created (Ref 17.56).</p> <p>Socio-economic information is limited; however, given that the Proposed Development concludes beneficial effects (not significant) and the Penrhos Leisure Village would have beneficial effects, there could theoretically be a beneficial cumulative effect.</p> <p>During construction, the overall employment of the two schemes combined is expected to temporarily provide 1.2% of the total employment in the regions of Anglesey and Gwynedd.</p> <p>Therefore, the cumulative effects are considered not significant.</p>		<p>unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>
	<p><u>Expenditure and supply chain:</u> Beneficial (not significant) during construction.</p>	<p><u>Expenditure and supply chain:</u> Beneficial</p>	<p>During construction, an estimated £63 million is expected to be contributed to the local economy. Given that the GVA for Anglesey and Gwynedd is in the region of £3.3 billion per annum (Ref 17.54), this represents an overall increase in GVA of 1.9% for a single year of construction.</p> <p>The overall investment value of the development is estimated at £1 billion (Ref 17.56).</p> <p>The Proposed Development would have a beneficial effect on expenditure and supply chain but the effect would not be significant. Given that the beneficial effects of the Eco Park are likely to be significant, there could theoretically be a significant beneficial cumulative effect, although the majority of this benefit would be derived from the Anglesey Eco Park development.</p>	<p>No additional mitigation is considered necessary.</p>	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Significant</b></p>
Parc Cybi	<p><u>Employment:</u> Beneficial (not significant) during construction.</p>	<p><u>Employment:</u> <b>Minor</b> Beneficial (not significant) during construction</p>	<p>On average, 218 workers per month would be required on the Proposed Development throughout the construction programme. The total of direct and indirect jobs filled by locals is 28. Considering that total employment in Anglesey and Gwynedd is in the region of 85,000, the Proposed Development would only attract 0.033% of total employment.</p> <p>The Parc Cybi assessment concludes that employment associated with</p>	<p>No additional mitigation is considered necessary.</p>	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the</p>



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Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>construction would likely result in a temporary direct increase in the level of local employment. Approximately eight Full Time Equivalent jobs would be employed for the construction of the hotel, however the exact number of construction jobs created across the wider development is not known (Ref 17.59).</p> <p>Given that the Proposed Development would have a beneficial effect (not significant), and Parc Cybi concludes that effects would be <b>minor</b> beneficial, theoretically there could be a beneficial cumulative effect.</p> <p>However, in the context of 85,000 employees in Anglesey and Gwynedd, the cumulative employment effects during construction would be <b>minor</b>.</p> <p>Therefore, the effects on employment are considered not significant.</p>		<p>effects considered separately.</p> <p><b>Not significant</b></p>
	<p><u>Expenditure and supply chain:</u> Beneficial (not significant) during construction.</p>	<p><u>Expenditure and supply chain:</u> Beneficial.</p>	<p>During construction, an estimated £63 million is expected to be contributed to the local economy. Given that the GVA for Anglesey and Gwynedd is in the region of £3.3 billion per annum (Ref 17.54), this represents an overall increase in GVA of 1.9% for a single year of construction.</p> <p>The Parc Cybi assessment predicts an increase in household income and associated local spending in the community (i.e. local shops and services) from the employed workers living in the surrounding area. Planning permission has also been granted for an 80-bedroom hotel on the site, including a restaurant and bar which is likely to generate £0.4m of GVA, benefiting the local economy (Ref 17.60).</p> <p>Given that the Proposed Development concludes beneficial effects (not significant) and the Parc Cybi development concludes beneficial effects, there could theoretically be a beneficial cumulative effect.</p> <p>However, in the context of the £3.3 billion GVA in Anglesey and Gwynedd, the combined contribution of the two developments is considered not significant.</p>	<p>No additional mitigation is considered necessary.</p>	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>
Holyhead Waterfront Redevelopment	<p><u>Employment:</u> Beneficial (not significant) during</p>	<p><u>Employment:</u> <b>Moderate</b> Beneficial.</p>	<p>On average 218 workers per month would be required on the Proposed Development throughout the construction programme. The total of direct and indirect jobs filled by locals is 28. Considering that total employment in Anglesey and Gwynedd is in the region of 85,000, the Proposed</p>	<p>No additional mitigation is considered necessary.</p>	<p>Although there is likely to be some cumulative effect, the overall</p>

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Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	construction.		<p>Development would only attract 0.033% of total employment.</p> <p>During construction, the infrastructure components are likely to involve a minimum of around 100 workers for a minimum of 12 months rising to 200-250 people during subsequent development phases. A high proportion are expected to be sourced locally (Ref 17.62).</p> <p>Given that the Proposed Development concludes beneficial effects (not significant), and the Holyhead Waterfront Redevelopment concludes beneficial effects, there could theoretically be a beneficial cumulative effect.</p> <p>However, during construction, applying a best case of 250 local workers, combined with 28 local workers from the Proposed Development results in an overall increase in employment of approximately 0.26%. This represents 0.33% of total employment in the Anglesey and Gwynedd region.</p> <p>Therefore, the cumulative effects are considered not significant.</p>		<p>significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>
	<p><u>Expenditure and supply chain:</u> Beneficial (not significant) during construction.</p>	<p><u>Expenditure and supply chain:</u> <b>Moderate</b> Beneficial (significant) during operation</p>	<p>During construction of the Proposed Development, an estimated £63 million is expected to be contributed to the local economy. Given that the GVA for Anglesey and Gwynedd is in the region of £3.3 billion per annum (Ref 17.54), this represents an overall increase in GVA of 1.9% for a single year of construction.</p> <p>During construction, a <b>moderate</b> positive residual effect is expected in encouraging economically active 18-65 year olds to stay in the locality (Ref 17.62). Similarly, positive effects are expected through support of catering, transportation, retail and accommodation businesses by construction workers outside of the high season.</p> <p>During operation, it is likely that income generation from the marina would be in the region of £6.6 million-£7.7 million per annum directly and indirectly related to marina berths. Substantial income generation to the locality is also expected from the increased residential population and the associated use of new leisure and restaurant facilities resulting in significant permanent economic benefits (Ref 17.62).</p> <p>Given that the Proposed Development reports effects during construction</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not Significant</b></p>

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Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			and the Holyhead Waterfront Redevelopment project reports effects during operation, the two assessments are not directly comparable. Effects would not occur at the same time and no cumulative effect would be expected.		
	<u>Visitor numbers:</u> Adverse (not significant) during construction and operation.	No information available.	<p>The potential for an effect on visitor numbers and behaviour during construction and operation of the Proposed Development is recognised but on the basis of the available evidence it is considered unlikely that this effect would be realised. In conclusion, no significant effects are anticipated.</p> <p>The Holyhead Waterfront Redevelopment is located to the west of Anglesey and approximately 20 km from the Proposed Development.</p> <p>It is therefore considered that during construction, due to the distance of the scheme from the Proposed Development, cumulative effects on visitor numbers are unlikely to be significant.</p>	No additional mitigation is considered necessary.	<p>Since the Proposed Development concludes no significant effects on visitor numbers, the overall cumulative effect is assessed as not significant.</p> <p><b>Not significant</b></p>
Glyn Rhonwy Pumped Storage	<u>Employment:</u> Beneficial (not significant) during construction.	<u>Employment:</u> <b>Minor</b> Beneficial (not significant) during construction.	<p>On average 218 workers per month would be required on the Proposed Development throughout the construction programme. The total of direct and indirect jobs filled by locals is 28. Considering that total employment in Anglesey and Gwynedd is in the region of 85,000, the Proposed Development would only attract 0.033% of total employment.</p> <p>On average there would be up to 100 construction staff on site at any one time. At the peak of construction this could increase to approximately 250 construction staff dependent on the build programme. The assessment concludes that effects on employment would have temporary regional <b>minor beneficial</b> effects (Ref 17.63).</p> <p>Given that the Proposed Development concludes beneficial effects (not significant) and the Glyn Rhonwy Pumped Storage development could also have potential beneficial effects, there could theoretically be a beneficial cumulative effect.</p> <p>However, during construction, the combined contribution to the employment market of the two developments represents 0.33% of total employment in the Anglesey and Gwynedd region.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>

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Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			Therefore, the cumulative effects are considered not significant.		
	<u>Visitor numbers:</u> Adverse (not significant) during construction and operation.	<u>Visitor numbers:</u> <b>Minor</b> Adverse during construction.	<p>The potential for the Proposed Development to have an effect on visitor numbers and behaviour during construction and operation is recognised but on the basis of the available evidence it is considered unlikely that this effect would be realised.</p> <p>The Glyn Rhonwy Pumped Storage assessment concludes that during construction, increased traffic is expected to result in adverse impacts on local tourism facilities. However, any decrease in tourist visitor numbers due to the construction activities would only be temporary in nature and mitigated through a CTMP (Ref 17.63).</p> <p>Given that the Proposed Development concludes no significant effects and the Glyn Rhonwy Pumped Storage development reports potential temporary localised <b>minor</b> adverse effects, overall cumulative effects would be expected to remain <b>minor</b> adverse.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>
	<u>Expenditure and supply chain:</u> Beneficial (not significant) during construction.	<u>Expenditure and supply chain:</u> Indirect <b>Minor</b> Beneficial (not significant) effects during construction and operation.	<p>During construction, an estimated £63 million is expected to be contributed to the local economy. Given that the GVA for Anglesey and Gwynedd is in the region of £3.3 billion per annum (Ref 17.54), this represents an overall increase in GVA of 1.9% for a single year of construction.</p> <p>Indirect effects from Glyn Rhonwy Pumped Storage are expected on the local economy from the use of local services such as accommodation providers, shops and restaurants by construction and decommissioning staff. Given that a proportion of the construction workforce would be outsourced from the local area, there would also be local expenditure in hotels, guest houses and B&amp;Bs (Ref 17.63).</p> <p>During operation of Glyn Rhonwy, permanent effects on the local and regional economy are expected from the increased viability and longevity of the storage network.</p> <p>Given that the Proposed Development concludes beneficial effects (not significant) and the Glyn Rhonwy Pumped Storage development concludes that beneficial effects would be <b>minor</b>, any potential effects on expenditure and supply chain are considered not significant.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>



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Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
West Anglesey Demonstration Zone	<u>Employment:</u> Beneficial (not significant) during construction.	<u>Employment:</u> Beneficial (significant).	<p>On average 218 workers per month would be required on the Proposed Development throughout the construction programme. The total of direct and indirect jobs filled by locals is 28. Considering that total employment in Anglesey and Gwynedd is in the region of 85,000, the Proposed Development would only attract 0.033% of total employment.</p> <p>The West Anglesey Demonstration Zone development would create temporary construction jobs and long term employment during the operation phase. Where possible, opportunities for local residents and businesses would be maximised (Ref 17.64).</p> <p>Given that the Proposed Development concludes that effects are beneficial but not significant and the West Anglesey Demonstration Zone development has potential for significant beneficial effects, the combined effect could be significant.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Significant</b></p>
	<u>Expenditure and supply chain:</u> Beneficial (not significant) during construction.	<u>Expenditure and supply chain:</u> <b>Minor</b> Beneficial (not significant).	<p>During construction, an estimated £63 million is expected to be contributed to the local economy. Given that the GVA for Anglesey and Gwynedd is in the region of £3.3 billion per annum (Ref 17.54), this represents an overall increase in GVA of 1.9% for a single year of construction</p> <p>Investment into local infrastructure such as Holyhead Harbour, the local transport network and other public services is expected to have <b>minor</b> positive effects on expenditure and supply chain in Anglesey (Ref 17.64).</p> <p>The value of the investment is not provided in the available documentation, however, given that the demonstration project would aim to develop and utilise local supply chains (Ref 17.65), there would be potential for significant beneficial effects on the local economy.</p> <p>Limited data are available on which to base the assessment of cumulative effects; however, given that the Proposed Development would have beneficial effects (not significant), and the demonstration project would potentially have significant beneficial effects, there could theoretically be a significant beneficial effect.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Significant</b></p>
Holyhead Deep	<u>Employment:</u> Beneficial (not	<u>Employment:</u> <b>Minor</b> Beneficial (not	On average 218 workers per month would be required on the Proposed Development throughout the construction programme. The total of direct	No additional mitigation is	Although there is likely to be some

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Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
	significant) during construction.	significant).	<p>and indirect jobs filled by locals is 28. Considering that total employment in Anglesey and Gwynedd is in the region of 85,000, the Proposed Development would only attract 0.033% of total employment.</p> <p>A total of seven direct Full Time Equivalent jobs were created at Minesto project headquarter prior to commissioning of Holyhead Deep. Following commission in June 2018 (Ref 17.75), it is expected that additional job opportunities would be created in the areas of project management, engineering, assembly, testing, operations, maintenance and servicing.</p> <p>This is expected to provide <b>minor</b> positive effects in terms of local employment in Anglesey (Ref 17.66).</p> <p>Given that the Proposed Development concludes beneficial effects (not significant) and the Holyhead Deep development reports <b>minor</b> beneficial effects. However, the scale of the Holyhead Deep development is expected to be on a smaller scale and require a smaller workforce than the Proposed Development.</p> <p>Even if the level of employment was on the same scale as the Proposed Development, the combined schemes would attract only 0.066% (0.033% + 0.033%) of the total employment in Anglesey and Gwynedd.</p> <p>Therefore, the cumulative effects on employment are assessed as not significant.</p>	considered necessary.	<p>cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>
	<u>Expenditure and supply chain:</u> Beneficial (not significant) during construction.	<u>Expenditure and supply chain:</u> Beneficial.	<p>During construction, an estimated £63 million is expected to be contributed to the local economy. Given that the GVA for Anglesey and Gwynedd is in the region of £3.3 billion per annum (Ref 17.54), this represents an overall increase in GVA of 1.9% for a single year of construction.</p> <p>Minesto estimates a potential investment of £10 million associated with the Project. There are also plans to invest in the local economy by sourcing services, facilities, vehicles and office goods locally, which would have a <b>positive effect</b> on the local supply chain in Holyhead and Anglesey (Ref 17.66).</p> <p>The Proposed Development concludes beneficial effects (not significant) and the Holyhead Deep development reports potential beneficial effects.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>



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Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			However, in the context of the £3.3 billion GVA in Anglesey and Gwynedd, the combined contribution of the two developments is considered not significant.		
A487 Caernarfon to Bontnewydd Bypass	<u>Expenditure and supply chain:</u> Beneficial (not significant) during construction.	<u>Expenditure and supply chain:</u> Beneficial.	<p>During construction of the Proposed Development, an estimated £63 million is expected to be contributed to the local economy. Given that the GVA for Anglesey and Gwynedd is in the region of £3.3 billion per annum, this represents an overall increase in GVA of 1.9% for a single year of construction.</p> <p>Limited environmental information is currently available on the A487 Caernarfon to Bontnewydd Bypass, however, the development is valued at approximately £141 million (Ref 17.72).</p> <p>The Proposed Development concludes beneficial effects (not significant) and the A487 development could also have potential beneficial effects.</p> <p>The combined contribution of the two developments (£63 million + £141 million) represents 6.2% of the region's total GVA. This could have a significant beneficial effect on the local economy. However, the majority of the benefit would derive from the A487 Bypass.</p>	No additional mitigation is considered necessary	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Significant</b></p>
Menai Science Park	<u>Expenditure and supply chain:</u> Beneficial (not significant) during construction.	<u>Expenditure and supply chain:</u> Beneficial.	<p>During construction of the Proposed Development, an estimated £63 million is expected to be contributed to the local economy. Given that the GVA for Anglesey and Gwynedd is in the region of £3.3 billion per annum, this represents an overall increase in GVA of 1.9% for a single year of construction.</p> <p>Limited environmental information is available for the Menai Science Park, however, the development is valued at approximately £20 million (Ref 17.57).</p> <p>Given that the Proposed Development concludes beneficial effects (not significant) and the Menai Science Park development could also have beneficial effects, there could theoretically be a beneficial cumulative effect.</p> <p>The Menai Science Park development is expected to have a value of approximately £20 million. In the context of the £3.3 billion GVA in Anglesey and Gwynedd, the combined contribution of the two</p>	No additional mitigation is considered necessary	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>

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Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			developments is unlikely to be significant.		
Third Menai Crossing	<u>Amenity effects—communities:</u> <b>Minor</b> Adverse (not significant) for Llanfairpwll and Pentir during construction.	No information available.	<p>There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.</p> <p>The Third Menai Crossing Environmental Constraints Plan acknowledges that local communities, facilities would be sensitive to any loss of land or facilities, severance, changes in noise or air quality and social effects; many of these matters could combine to affect overall amenity (Ref 17.67).</p> <p>There is potential for cumulative effects on amenity, however since Pentir and Llanfairpwll are the only communities likely to be affected by both the Proposed Development and the Third Menai Crossing, in the context of the entire study area across Anglesey and Gwynedd, effects on communities are considered not significant.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>

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	<u>Expenditure and supply chain:</u> Beneficial (not significant) during construction.	No information available.	<p>There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.</p> <p>During construction of the Proposed Development, an estimated £63 million is expected to be contributed to the local economy. Given that the GVA for Anglesey and Gwynedd is in the region of £3.3 billion per annum, this represents an overall increase in GVA of 1.9% for a single year of construction.</p> <p>It is expected that the net present value of the scheme, dependent on the design option chosen, would be in the region of £59 million - £114 million (Ref 17.67).</p> <p>Given that the Proposed Development concludes that effects would be beneficial (not significant) and the assessment for the Third Menai Crossing development indicates the potential for beneficial effects, there could theoretically be a beneficial cumulative effect.</p> <p>A best case scenario would result in a combined value of both schemes of £177 million, representing 5.4% of the GVA for Anglesey and Gwynedd. This could have a significant beneficial effect on the local economy. However, the majority of the benefit would derive from the Third Menai Crossing development.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Significant</b></p>
Amlwch Liquid Natural Gas (LNG)	<u>Employment:</u> Beneficial (not significant) during construction.	Employment: Beneficial.	<p>On average 218 workers per month would be required on the Proposed Development throughout the construction programme. The total of direct and indirect jobs filled by locals is 28. Considering that total employment in Anglesey and Gwynedd is in the region of 85,000, the Proposed Development would only attract 0.033% of total employment.</p> <p>This construction process is expected to take two to three years and would provide approximately 300 new jobs. When the site is operational, a further 60 jobs are expected (Ref 17.68). The original ES was unavailable for review and therefore the significance of these effects is unknown.</p> <p>It is assumed that there would be some effect on local employment and</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>

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			<p>therefore there could theoretically be a beneficial cumulative effect.</p> <p>However, during construction, the combined contribution to the employment market of both developments would increase by 0.35% representing 0.37% of total employment market in the Anglesey and Gwynedd region.</p> <p>During operation, the contribution to total employment would be even lower.</p> <p>Therefore, the cumulative effects are considered not significant.</p>		
Green Wire	<u>Amenity effects – communities:</u> <b>Minor</b> Adverse (not significant) for Pentir during construction.	No information available.	<p>There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.</p> <p>Both developments are expected to have elements located at Pentir Substation, there is potential for localised cumulative effects on community amenity.</p> <p>The assessment for the Proposed Development concluded <b>minor</b> community amenity effects. This effect would need to be substantially greater in order to be considered significant.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>
Codling Wind Park	<u>Employment:</u> Beneficial (not significant) during construction.	<u>Employment:</u> Beneficial.	<p>On average 218 workers per month would be required on the Proposed Development throughout the construction programme. The total of direct and indirect jobs filled by locals is 28. Considering that total employment in Anglesey and Gwynedd is in the region of 85,000, the Proposed Development would only attract 0.033% of total employment.</p> <p>Up to 200 skilled and non-skilled construction workers would be employed during the three to seven-year construction period. A number of these workers are likely to be sourced locally however there is potential for the sourcing of workers from Ireland. Over the lifetime of the windfarm, 15-20 technicians and management staff would also be employed as permanent staff (Ref 17.70).</p> <p>Given that the Proposed Development concludes that effects would be</p>	No additional mitigation is considered necessary	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>

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			<p>beneficial (not significant) and the Codling Wind Park development concludes potential beneficial employment effects, there could theoretically be a beneficial cumulative effect.</p> <p>During construction, applying a best case of 200 local workers, combined with 28 local workers from the Proposed Development, the increase in employment in the context of total employment would be 0.23%. On this basis, cumulative effects on employment are assessed as not significant.</p>		
	<u>Expenditure and supply chain:</u> Beneficial (not significant) during construction.	<u>Expenditure and Supply Chain:</u> Beneficial (not significant).	<p>During construction of the Proposed Development, an estimated £63 million is expected to be contributed to the local economy. Given that the GVA for Anglesey and Gwynedd is in the region of £3.3 billion per annum, this represents an overall increase in GVA of 1.9% for a single year of construction.</p> <p>The investment value of the installation of the Codling Wind Park would be around £800m. This could have a significant beneficial impact on the Anglesey and Gwynedd economy.</p> <p>The Proposed Development concludes beneficial effects (not significant) and the Codling Wind Park development reports potential beneficial effects.</p> <p>The combined contribution of the two developments (£63 million + £800 million) represents 26% of the region's total GVA. This could have a significant beneficial effect on the local economy. However, the majority of the benefit would derive from the Codling Wind Park development.</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Significant</b></p>



**Table 20.16 Socio Economics CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Grwp Llandrillo Menai Llangefni Campus	<u>Employment:</u> Beneficial (not significant) during construction.	<u>Employment:</u> Beneficial.	<p>On average 218 workers per month would be required on the Proposed Development throughout the construction programme. The total of direct and indirect jobs filled by locals is 28. Considering that total employment in Anglesey and Gwynedd is in the region of 85,000, the Proposed Development would only attract 0.033% of total employment.</p> <p>The construction of a New Engineering Centre (NEC), hotel and restaurant would create jobs in the long term, which would provide wider economic benefits in terms of indirect job creation and additional goods and services produced locally (Ref 17.71).</p> <p>Given that the assessment for the Proposed Development concludes that effects would be beneficial (<b>not significant</b>) and the Grwp Llandrillo development assessment indicates the potential for beneficial effects, there could theoretically be a beneficial cumulative effect.</p> <p>Given the employment market in Anglesey and Gwynedd is in the region of 85,000, cumulative effects on employment are assessed as not significant.</p>	No additional mitigation is considered necessary	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately.</p> <p><b>Not significant</b></p>
Dinorwig Cables	<u>Community Amenity:</u> <b>Minor</b> Adverse (not significant) for Pentir during construction.	No information available	<p>It is not possible to accurately assess the potential cumulative effects in the absence of further information about the Dinorwig Cables project. However, the constituent topics for the amenity assessment do not combine to identify a significant cumulative effect with this project and the only topic to identify a significant cumulative effect is visual. As there would be little potential for a significant visual effects as a result of the Dinorwig Cables, as they are underground, it is considered unlikely that there could be a significant cumulative effect.</p>	No additional mitigation is considered necessary	<b>Not significant.</b>
Holyhead Port Expansion	Employment: Beneficial (not significant) during construction.	No information available.	<p>There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.</p> <p>However, the scale of the Holyhead Port Expansion development is expected to be on a smaller scale and require a smaller workforce than the Proposed Development.</p> <p>Even if the level of employment was on the same scale as the Proposed</p>	No additional mitigation is considered necessary.	<p>Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered</p>



**Table 20.16 Socio Economics CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			Development, the combined schemes would attract only 0.066% (0.033% + 0.033%) of the total employment in Anglesey and Gwynedd.  Therefore, the cumulative effects on employment are assessed as not significant.		separately. <b>Not significant</b>
	Expenditure and supply chain: Beneficial (not significant) during construction.	No information available	There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.  However, the port currently contributes more than £2.4m to the Welsh economy each year. Therefore, once operating at full capacity, there is potential for beneficial effects on the economy, although these would be unlikely to be significant.	No additional mitigation is considered necessary	Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately. <b>Not significant</b>
	Visitor Numbers adverse (not significant) during construction and operation.	No information available	The potential for an effect on visitor numbers and behaviour during construction and operation of the Proposed Development is recognised but on the basis of the available evidence it is considered unlikely that this effect would be realised. In conclusion, no significant effects are anticipated.  The Holyhead port expansion is located to the west of Anglesey and approximately 20 km from the Proposed Development.  It is therefore considered that during construction, due to the distance of the scheme from the Proposed Development, cumulative effects on visitor numbers are unlikely to be significant.	No additional mitigation is considered necessary	Although there is likely to be some cumulative effect, the overall significance is unlikely to be any greater than the effects considered separately. <b>Not significant</b>

*Agriculture*

**Table 20.17 Agriculture CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
Wylfa Newydd Power Station	<u>BMV Agricultural land</u> – (not significant).	<u>BMV Agricultural land</u> – <b>Minor</b> adverse (not significant).	<p>The total potential BMV loss in Anglesey as a result of the Proposed Development (1.7 ha) and all elements of the Wylfa Newydd Power Station development (251.9 ha) would be 253.6 ha. This assumes a worst-case scenario, in which the Wylfa Newydd Power Station Assessment includes Subgrade 3b in the BMV total, and the worst-case land-take calculated for the Proposed Development.</p> <p>The cumulative scale of the loss is considered in the context of the ALC baseline of Anglesey as a whole, in which a cumulative loss of 1.7% of BMV land on Anglesey could potentially be permanently removed from agricultural use.</p> <p>The proportion of loss related to the Proposed Development compared with the Wylfa Newydd Power Station would be proportionately very small, and as the loss relating to Wylfa Newydd is considered to only be <b>minor</b>; it is not considered possible for there to be a significant cumulative effect.</p>	None.	<b>Not significant</b>
Parc Cybi	<u>BMV Agricultural land</u> – (not significant).	Permanent loss of Grade 3 agricultural land, with the potential to be BMV.	<p>The total potential BMV loss in Anglesey as a result of the Proposed Development (1.7 ha) and Parc Cybi (48.5 ha) would be 50.2 ha. This assumes a worst-case scenario, in which the Parc Cybi land take assumes all Grade 3 land is Subgrade 3a (i.e. BMV), and the worst-case land-take calculated for the Proposed Development.</p> <p>The cumulative scale of the loss is considered in the context of the ALC baseline of Anglesey as a whole, in which a cumulative loss of 0.34% of BMV land on Anglesey could potentially be permanently removed from agricultural use.</p> <p>Therefore, it is considered unlikely that a significant cumulative effect would to occur.</p>	None.	<b>Not significant</b>
A487 Caernarfon to Bontnewydd Bypass	<u>BMV Agricultural land</u> – (not significant).	No information available.	From the Welsh Government Predictive ALC tool (Ref 20.9), there is a low likelihood of permanent BMV land take as a result of the A487 Caernarfon to Bontnewydd Bypass.	n/a	n/a

**Table 20.17 Agriculture CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			Therefore, it is considered not possible for a significant cumulative effect to occur.		
Menai Science Park	<u>BMV Agricultural land</u> – (not significant).	No information available.	<p>IACC did not require an assessment of the impact of Menai Science Park to agricultural land to inform the planning application (33C304B/ECON). Therefore, the effect upon agricultural land was considered to be not significant.</p> <p>The total potential BMV loss in Anglesey as a result of the Proposed Development (1.7 ha) and the Menai Science Park (8.3 ha) would be 10 ha. This assumes a worst-case scenario, in which the worst-case land-take calculated for the Proposed Development.</p> <p>The cumulative scale of the loss is considered in the context of the ALC baseline of Anglesey as a whole in which a cumulative permanent loss of 0.07% of BMV land on Anglesey could potentially occur.</p> <p>Therefore, it is considered not possible for a significant cumulative effect to occur.</p>	n/a	n/a
Third Menai Crossing	<u>BMV Agricultural land</u> – (not significant).	No information available.	<p>There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.</p> <p>From the Welsh Government Predictive ALC tool (Ref 20.9), there is a low likelihood of permanent BMV land take as a result of the Third Menai Crossing.</p> <p>Therefore, it is considered not possible for a significant cumulative effect to occur.</p>	n/a	n/a
A55 Abergwyngregyn to Tai'r Meibion Improvement	<u>BMV Agricultural land</u> – (not significant).	<u>BMV Agricultural land</u> – Slight Adverse (not significant).	<p>A55 Abergwyngregyn to Tai'r Meibion assessment states that there would be a permanent loss of approximately 2.8 ha of Subgrade 3a and 2.9ha of Sub-grade 3b agricultural land.</p> <p>The total potential BMV loss on Gwynedd as a result of the Proposed Development (1.4 ha) together with the A55 Abergwyngregyn to Tai'r</p>	None.	<b>Not significant</b>

**Table 20.17 Agriculture CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>Meibion (2.8 ha) would be 4.2 ha. This assumes a worst-case scenario, in related to land-take calculated for the Proposed Development.</p> <p>The cumulative scale of the loss is considered in the context of the ALC baseline of Gwynedd as a whole, in which a cumulative permanent loss of 0.04% of BMV land on Gwynedd could potentially occur.</p> <p>Therefore, it is considered not possible for a significant cumulative effect to occur.</p>		
Green Wire	<u>BMV Agricultural land</u> – (not significant).	No information available.	<p>There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.</p> <p>From the Welsh Government Predictive ALC tool (Ref 20.9), there is a low likelihood of permanent BMV land take as a result of the Green Wire development.</p> <p>Therefore, it is considered not possible for a significant cumulative effect to occur.</p>	n/a	n/a
Codling Wind Park	<u>BMV Agricultural land</u> – (not significant).	No information available.	<p>There is insufficient information as yet about the effects of the other development, and as such the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.</p> <p>From the Welsh Government Predictive ALC tool (Ref 20.9), there is a low likelihood of permanent BMV land take as a result of the Codling Wind Park.</p> <p>Therefore, it is considered not possible for a significant cumulative effect to occur.</p>	n/a	n/a
Grŵp Llandrillo Menai Llangefni Campus	<u>BMV Agricultural land</u> – (not significant).	No information available.	<p>Grŵp Llandrillo Menai Llangefni Campus documents state that the development would result in a permanent loss of Grade 3 agricultural land, with the potential to be BMV.</p> <p>IACC did not require an assessment of the impact to agricultural land to inform the Environmental Statement (PP/05399564). Therefore, the effect</p>	None.	<b>Not significant</b>

**Table 20.17 Agriculture CEA**

Development Name	Effects on shared receptors from the Proposed Development	Effects on shared receptors from the 'other development'	Assessment of Cumulative effect with Proposed Development	Proposed Mitigation applicable to the Proposed Development including any apportionment	Residual Cumulative Effect
			<p>upon agricultural land was considered to be not significant.</p> <p>The total potential BMV loss on Anglesey as a result of the Proposed Development (1.7 ha) and the Grŵp Llandrillo Menai Llangefni Campus (13.8 ha) would be 15.5 ha. This assumes a worst-case scenario, in which the entire Grŵp Llandrillo Menai Llangefni Campus site area would be BMV land and a worst-case land-take calculated for the Proposed Development.</p> <p>The cumulative scale of the loss is considered in the context of the ALC baseline of Anglesey as a whole (see paragraphs 9.3.15-9.3.16), in which a cumulative loss of 0.1% of BMV land on Anglesey could potentially be permanently removed from agricultural use.</p> <p>Therefore, it is considered not possible for a significant cumulative effect to occur.</p>		

### 4.3 INTER-PROJECT INTRA-PROJECT EFFECTS

- 4.3.1 Intra-project effects (i.e. multiple types of effect) of the Proposed Development alone on single receptors are reported in Chapter 19, Intra-Project Cumulative Effects (**Document 5.19**).
- 4.3.2 In order to determine if inter-project intra-project effects would be experienced it would be necessary to identify these same individual receptors in the assessment work undertaken for other developments, in order to identify them as shared receptors. This has not been possible for individual properties, as they have not typically been assessed as part of the assessments undertaken for 'other development'. Therefore an assessment of intra-project inter project effects is only possible at a community level, which is the scale of receptor common to the majority of assessments.
- 4.3.3 The overall amenity effect resulting from multiple types of potential effects of the Proposed Development on commercial, recreational, public rights of way (PRoW), tourism and community receptors is reported in ES Chapter 17 Socio Economics. As the inter-project amenity effects on these receptors is then considered for socio-economics, as set out earlier in this chapter, this already provides an assessment of inter-project intra-project effects on amenity.
- 4.3.4 Road users were also identified as a shared receptor for intra-project effects. Of the links identified in Table 20.12 above only link 19 has been identified as having an intra-project effect in Chapter 19 (**Document 5.19**). However, as there is insufficient detail on the other developments at this time it has not been possible to undertake an inter-project intra project assessment on this road link.
- 4.3.5 As noted in section 1.1.7 cumulative effects of the Proposed Development with the Wider Works are reported in Chapter 21 Statement of Combined Effects with the Wider Works (**Document 5.21**) and this assessment has not identified any effects which would increase the reported level of significance for the Proposed Development. Therefore the Intra-Project effects including the Wider Works are as reported in Chapter 19 – Intra-Project Effects (**Document 5.19**).



## 4.4 SUMMARY

### *Landscape*

4.4.1 Taking into consideration all of the other developments for which a potential cumulative effect has been identified, the following cumulative effects are considered likely on shared receptors:

- Significant cumulative effects on local landscape character in the north of Anglesey. The greatest effects would be concentrated within North-west Drumlins (YNSMNVS008) (North) and Wylfa Power Station (YNSMNVS086) VSAs, these would arise as a result of the effects of three other developments (Wylfa Newydd Power Station, Wylfa Nuclear Power Station Decommissioning and Rhyd-y-Groes Re-power) in combination with the Proposed Development. Additional cumulative effects on landscape character in the north of Anglesey may also arise within North-west Drumlins (YNSMNVS008) (South) and Drumlins with Windfarms (YNSMNVS010) VSAs. This would be as a result of the effects of two other developments (Llanbadrig Solar Farm and Rhyd-y-Groes Re-power) in combination with the Proposed Development. Furthermore, effects on Drumlins with Windfarms (YNSMNVS010) would be exacerbated by Wylfa Newydd Power Station.
- Cumulative effects on Anglesey AONB in a localised area of the north Coast although these would not be considered significant over the AONB as a whole. This would arise as a result of the effects of three other developments (Wylfa Newydd Power Station, Wylfa Nuclear Power Station Decommissioning and Rhyd-y-Groes Re-power) in combination with the Proposed Development.
- Cumulative effects may occur in relation to landscape character in Gwynedd, specifically relating to Bethel (Between Clynog and Bangor) (GWNDDVS006) VSA. Cumulative effects may arise as a result of the effects of two other developments (A487 Caernarfon to Bontnewydd Bypass and Green Wire) in combination with the Proposed Development. However, the cumulative effects with the A487 Caernarfon to Bontnewydd Bypass are most likely during construction. Furthermore as there is insufficient information as yet about the effects of Green Wire, the potential cumulative effects with the Proposed Development would need to be a consideration during the relevant assessment and consenting for that development.

### *Visual*

#### 4.4.2 The following developments would result in significant cumulative effects on visual receptors with the Proposed Development:

- Wylfa Newydd Power Station - Significant cumulative effects during construction on a number of receptors including users of the Wales Coast Path, NCR 566, A5025, Cemaes, Tregele and Llanfairynghornwy continuing into operation for users of the Wales Coast Path, NCR 566, Cemaes and Tregele. The development is very large in scale and during construction the cumulative effects would be greatest from the works at Wylfa Newydd Power Station. During operation the effects of the Proposed Development would be greater for properties in Tregele and Cemaes in close proximity to the proposed 400 kV OHL;
- Rhyd-y-Groes Re-power - Significant cumulative effects during operation on communities of Llanbadrig, Cemaes and Llanfechell and for users of the A5025 but these effects would mainly attributed to the development with the exception of those individual properties in close proximity to the Proposed Development;
- Underground Grid Connection between Glyn Rhonwy Pumped Storage Development and Pentir Substation - Significant cumulative construction effects are likely for communities of Pentir and Rhiwlas and individual properties close to Pentir (Ty'n Llwyn (R5/10768 & R5/10846)) but the exact effects are unknown due to limited information regarding the development;
- Green Wire - Significant cumulative construction and operation effects are likely for communities of Pentir and Rhiwlas and individual properties close to Pentir (Ty'n Llwyn (R5/10768 & R5/10846)) but the exact effects are unknown due to limited information regarding the development; and
- Dinorwig Cables - Significant cumulative construction effects are likely for communities of Pentir and Rhiwlas but the exact effects are unknown due to limited information regarding the development.

#### 4.4.3 If all the developments occurred at the same time there would be an increase in the level of cumulative effect in two areas; north of Anglesey around the communities of Cemaes, Llanbadrig and Llanfechell and in Gwynedd around Pentir.

- 4.4.4 In the north of Anglesey, the developments of Wylfa Newydd Power Station, Rhyd-y-Groes Re-power in addition to Llanbadrig Solar Farm and the Proposed Development would be a large change particularly for receptors viewing the developments sequentially along the A5025 and users of the Wales Coast Path.
- 4.4.5 Around Pentir, the developments of Green Wire, Dinorwig Cables, Underground Grid Connection between Glyn Rhonwy Pumped Storage Development and Pentir Substation in addition to the Proposed Development could have a greater effect on the community of Pentir together.

#### *Ecology and Nature Conservation*

- 4.4.6 Whilst it is predicted that some residual adverse ecological effects that could arise during the construction or operation of the 'other developments' considered, could also affect sites, habitats or species potentially affected by the Proposed Development, there is no potential for cumulative effects of greater overall significance than the effects of each development alone. As such, there is no need for the Proposed Development to provide additional mitigation.
- 4.4.7 This conclusion takes into account the potential for cumulative effects between more than one of these 'other developments'.

#### *Historic Environment*

- 4.4.8 Taking into consideration all of the 'other developments' for which a potential cumulative effect has been identified, the overall effects is considered to be limited to a significant effect on Standing Stones Scheduled Monument (AN 030). This would derive from a combination of the Wylfa Newydd Power Station and the new OHL which would increase and intensify the visibility of modern energy infrastructure in views across a broad arc from the north to the south-east.
- 4.4.9 The potential for more than one other development, in addition to the Proposed Development, to result in a significant cumulative effect has also been considered. In particular, the Dinorwig Landscape of Outstanding Historic Interest has the potential to be affected by a number of the identified developments. However, where sufficient information is available, it is clear that the total extent of any disturbance would not be sufficient to result in a significant cumulative effect on this asset.

### *Geology, Hydrogeology and Ground Conditions*

- 4.4.10 Taking into consideration all of the other developments for which a potential cumulative effect has been identified, the overall effects are considered to be not significant.

### *Water Quality Resources and Flood Risk*

- 4.4.11 Taking into consideration all of the other developments for which a potential cumulative effect has been identified, the overall cumulative effects are considered to be not significant.

### *Traffic and Transport*

- 4.4.12 Taking into consideration all of the other developments for which a potential cumulative traffic effect has been identified, the overall effects are considered to be no worse than the most adverse reported for the Proposed Development or the other developments, and would not increase the significance.

### *Air Quality*

- 4.4.13 Taking into consideration the cumulative emissions of 'other developments' would increase the impact reported at the human health sensitive receptors considered. However, even with the increase in impacts, the cumulative effect of the Proposed Development and 'other developments' remains not significant for all air quality sensitive locations considered.
- 4.4.14 Cumulative effects could also occur at the ecological receptors located near to the A55 (Cors Ddyga SSSI and Coedydd Afon Menai SSSI) and the A5025 (Beddmanarch-Cymyran SSSI), when comparing the cumulative operational scenario to the future baseline scenario (with no cumulative flows). The impact on annual mean nutrient nitrogen deposition rates at these locations exceeds 1% of the relevant Critical Loads for the habitats, and cannot be screened as insignificant. When comparing the cumulative operational scenario against the cumulative future baseline scenario (i.e. cumulative flows are present in both scenarios), impacts are such that they can be screened as insignificant for all three habitats. Total deposition rates at Beddmanarch-Cymyran SSSI remain below the upper Critical Load value for this habitat. Impacts cannot be screened as insignificant for annual mean concentrations of NO<sub>x</sub> at Cors Ddyga SSSI (Section D) or Coedydd Afon Menai SSSI (Section F), both of which are near to the A55. However, at these locations, total NO<sub>x</sub> concentrations remain below the air quality objective value.

- 4.4.15 It should be noted that the contribution of the Proposed Development to the cumulative effects reported is temporary and would last for the duration of the Proposed Development construction phase only.

#### *Construction Noise and Vibration*

- 4.4.16 Taking into consideration all of the other developments for which a potential cumulative effect has been identified, the overall effect, in combination with the Proposed Development ranges between not significant and significant. Where the effect is significant, this is mostly due to effects from either the Proposed Development or the other development, and not the combined effect of the two. Therefore, the need for additional mitigation for construction noise and vibration in relation to potential significant effects is not considered to be necessary.

#### *Operational Noise*

- 4.4.17 Taking into consideration all of the other developments for which a potential cumulative effect has been identified, it is determined that there are no potential for cumulative effects from the Proposed Development and other developments likely to result in a significant adverse effect at any of the shared receptors.

#### *Socio Economic*

- 4.4.18 Taking into consideration all of the 'other developments' for which a potential cumulative effect have been identified, the majority of cumulative effects are beneficial, although in the main these would not be significant. No significant adverse cumulative effects have been predicted.

#### *Agriculture*

- 4.4.19 Taking into consideration all of the other developments for which a potential cumulative effect has been identified, the overall effects are considered to be not significant.

#### *Inter-Project Intra-Project Effects*

- 4.4.20 The assessment of the socio-economic inter-project effects on amenity for commercial, recreational, public rights of way (PRoW), tourism and community receptors covers all of the topics likely to contribute to an intra-project effect and all 'other development' amenity effects. This concluded that inter-project effects on amenity were not significant.
- 4.4.21 Cumulative effects of the Proposed Development with the Wider Works are reported in Chapter 21 Statement of Combined Effects with the Wider Works

(**Document 5.21**) and this assessment has not identified any effects which would increase the reported level of significance for the Proposed Development. Therefore the Intra-Project effects including the Wider Works are as reported in Chapter 19 – Intra-Project Effects (**Document 5.19**).



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