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17 Inter-related cumulative effects

17.1 Introduction

- 17.1.1. This chapter presents the assessment of the likely significant effects of the Proposed Development with respect to inter-related (intra-project) cumulative effects. It should be read in conjunction with the description provided in **Chapter 4: Development Description**
- 17.1.2. Potential inter-project cumulative effects arising from the combination of effects from the Proposed Development with similar topic-related effects generated by other developments are discussed in **Chapter 2: Approach to Environmental Impact Assessment** and assessed in **Chapters 6-16**.

Limitations and assumptions

- 17.1.3. The Draft Environmental Statement (ES) has been produced to fulfil the Applicant's consultation duties and enable consultees to develop an informed view of the likely significant effects of the Proposed Development.
- 17.1.4. The following limitations have impacted the preliminary assessment of likely significant inter-related cumulative effects of the Proposed Development:
- An operational noise assessment is yet to be undertaken as part of the EIA. This is described further in **Chapter 13: Noise**;
 - An assessment of residential amenity effects is yet to be undertaken as part of the EIA. A Detailed Residential Visual Amenity Assessment (RVAA) will be undertaken as part of the Final ES. See **Chapter 6: Landscape and Visual Impact Assessment** for further details.
 - An assessment of the proposed offline access track between Panside and the unclassified road (**Inset A** on **Figure 1-2**) is yet to be undertaken by all disciplines, where appropriate. Further details are provided in **Chapter 2**;
 - A peat survey of the proposed access track between T2 and the southernmost track of the proposed Mynydd Maen development is yet to be undertaken. See **Chapter 2** and **Chapter 11: Ground Conditions** for further details; and
 - An ecological walkover of the proposed access track between T2 and the southernmost track of the proposed Mynydd Maen development is yet to be undertaken. See **Chapter 2**, **Chapter 8: Biodiversity** for further details.
- 17.1.5. Please refer to **Section 17.11** for further information related to further work to be undertaken as part of the Final ES.

17.2 Relevant Legislation, planning policy and technical guidance

- 17.2.1. This section identifies the legislation, planning policy and technical guidance that has informed the assessment of effects with respect to inter-related cumulative effects. Further information on

policies relevant to the Proposed Development is provided in **Chapter 5: Legislation and policy overview**.

Legislation

- 17.2.2. This assessment takes into account Paragraph 5 of Schedule 4 of the Town & Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017¹ which states that the “*The description of the likely significant effects on the factors specified in regulation 4(2) should cover the direct effects and any indirect, secondary, **cumulative**, transboundary, short-term, medium-term and long-term, permanent and temporary, positive and negative effects of the development.*”

Planning policy

- 17.2.3. A summary of the relevant national and local planning policy is given in **Table 17.1**.

Table 17.1 Planning policy relevant to the inter-related cumulative effects assessment

Policy	Policy Context
National Planning Policy	
Future Wales: The National Development Plan 2040²	<p>Policy 18: Renewable and Low Carbon Energy Developments of National Significance outlines that proposals should consider the cumulative impacts of existing and consented renewable energy schemes.</p> <p>The Plan further states that “<i>Both within and outside Pre-Assessed Areas, communities should be protected from significant cumulative impacts to avoid unacceptable situations whereby, for example, smaller settlements could be potentially surrounded by large wind schemes</i>”.</p>
Planning Policy Wales, Edition 12, Welsh Government (2024)³	<p>Chapter 5: Productive and Enterprising Places covers the economic components of placemaking. The chapter outlines that local planning authorities should, when formulating their renewable energy targets, “<i>take into account the cumulative impact of renewable and low carbon energy development and their associated infrastructure, for example grid connections</i>”.</p>

Technical Guidance

- 17.2.4. A summary of other relevant information and guidance relevant to the assessment undertaken for inter-related cumulative effects is provided here:

¹ UK Government (2017). The Town and Country Planning (Environmental Impact Assessment) (Wales) Regulations 2017. (Online) Available at: <https://www.legislation.gov.uk/wsi/2017/567/contents> (Accessed April 2025).

² Welsh Government (2021). Future Wales: The National Plan 2040. (Online) Available at: <https://gov.wales/sites/default/files/publications/2021-02/future-wales-the-national-plan-2040.pdf> (Accessed April 2025).

³ Welsh Government (2021) Planning Policy Wales, Edition 11, February 2021. (Online). Available at: https://gov.wales/sites/default/files/publications/2021-02/planning-policy-wales-edition-11_0.pdf. (Accessed April 2025).

- Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU)⁴ aims to help developers and consultants produce good quality EIA reports. Section 1.4.3 highlights the need to consider interactions between the different environmental aspects in a single project. It recommends using interactive matrices that consider the interactions of impacts assessed individually; and
- Guideline for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions⁵ sets out various tools that can be used for inter-related effects, guidance on the approach and assessment. Section 3 of the guidance outlines the tools that can be used for inter-related effects, which are: expert opinion, matrices, consultation and questionnaires, network and systems analysis and spatial analysis. These tools can be used in different combinations at different stages of the project. Section 7.7 of the guidance states the inter-related effects assessment can be within the individual aspect chapters or as its own standalone chapter (as in this Draft ES). Section 7.3.1 of the guidance states where the assessment cannot be qualitative, a qualitative assessment can be carried out.

17.3 Consultation and engagement

Overview

- 17.3.1. The assessment has been informed by consultation responses and ongoing stakeholder engagement. An overview of the approach to consultation is provided in **Section 2.4 of Chapter 2: Approach to Environmental Impact Assessment**.

Scoping Direction

- 17.3.2. A Scoping Direction was issued by Planning and Environmental Decisions Wales (PEDW), on behalf of the Welsh Ministers, on 04 December 2024. No comments on inter-related cumulative effects were raised in the Scoping Direction.

17.4 Data gathering methodology

- 17.4.1. The study area and data gathering exercises for the inter-related effects assessment are informed by those from each of the environment topic chapters (**Chapter 6 to Chapter 16**).

17.5 Overall baseline

- 17.5.1. The baseline for the assessment is as discussed within the individual topic chapters (**Chapters 6-16**).

⁴European Commission (2017). Environmental Impact Assessment of Projects: Guidance on the preparation of the Environmental Impact Assessment Report (Directive 2011/92/EU as amended by 2014/52/EU). (Online) Available at: https://ec.europa.eu/environment/eia/pdf/EIA_guidance_EIA_report_final.pdf (Accessed April 2025).

⁵ European Commission (1999). Guideline for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions. (Online) Available at: <https://ec.europa.eu/environment/archives/eia/eia-studies-and-reports/pdf/guidel.pdf> (Accessed April 2025).

17.6 Embedded measures

17.6.1. A range of environmental measures have been embedded into the development proposals as outlined in **Section 4.9** and **Chapters 6-16** of this Draft ES.

17.7 Scope of the assessment

Spatial scope

17.7.1. The spatial study area is dependent on each receptor. To have a potential inter-related effect a receptor or receptor group must be within the study area of more than one environmental topic. An illustrative example of this is described in **Graphic 17-1**; only the green receptors have the potential to experience inter-related effects as they are in the study area for environmental topic (aspect) 1 and environmental topic (aspect) 2.

Graphic 17-1 Illustrative example of the spatial scope and study area for an example receptor



17.7.2. The study area for each of the individual environmental topics (**Chapter 6 to Chapter 16**) relevant to this chapter have been informed through desk study and engagement with stakeholders.

Temporal scope

17.7.3. The temporal scope of the assessment of inter-related effects is the entire lifetime of the Proposed Development which therefore covers the construction, operation and maintenance and decommissioning periods.

Potential receptors

- 17.7.4. The most likely types of receptors where topic effects are likely to combine are those pertaining to the amenity of the human population. For example, the occupants of a residential property in close proximity to the Proposed Development might be subject to adverse effects in terms of noise or shadow flicker, as well as with regard to visual amenity, or any combination thereof, each of which, when assessed individually, may not be significant in EIA terms, but when assessed in combination the combined effects may be judged to be significant.
- 17.7.5. Consideration has also been given to the potential for inter-related cumulative effects on other environmental receptors. A review of the respective Draft ES chapters has been undertaken to identify where one non-human receptor may be affected by more than one environmental effect.

Landscape/Visual and Environment Receptors

- 17.7.6. Twenty-five locations have been considered in two or more of the following receptors:
- Chapter 6: Landscape and Visual Impact Assessment (LVIA);
 - Chapter 12: Traffic and Transport; and
 - Chapter 16: Socio-economics.

Human/Residential Receptors

- 17.7.7. Fifteen receptor locations have been considered in two or more of the following chapters:
- Chapter 6: Landscape and Visual Assessment (LVIA);
 - Chapter 10: Water Environment;
 - Chapter 13: Noise and Vibration; and
 - Chapter 14: Shadow Flicker.

Ecological Receptors

- 17.7.8. Eight receptor locations have been considered in two or more of the following chapters:
- Chapter 8: Biodiversity;
 - Chapter 9: Ornithology;
 - Chapter 10: Water Environment; and
 - Chapter 11: Ground Conditions.
- 17.7.9. All receptors considered in two or more Draft ES chapters are summarised in **Table 17.2**.

Table 17.2 Common receptors between Draft ES Chapters

Receptor	Ch 6: Landscape and Visual	Ch 7: Historic Env	Ch 8 Biodiversity	Ch 9: Ornithology	Ch 10: Water Env	Ch 11: Ground Con	Ch 12: Traffic & Transport	Ch 13: Noise	Ch 14: Shadow Flicker	Ch 15: Socio- economics	Ch 16: Other Issues
Landscape/Visual and Environmental Receptors											
Cambrian Way	✓	X	X	X	X	X	X	X	X	✓	X
Celtic Way	✓	X	X	X	X	X	X	X	X	✓	X
Cistercian Way	✓	X	X	X	X	X	X	X	X	✓	X
Ebbw Valley Walk	✓	X	X	X	X	X	X	X	X	✓	X
Raven Walk	✓	X	X	X	X	X	X	X	X	✓	X
Rhymney Valley Ridgeway Walk	✓	X	X	X	X	X	X	X	X	✓	X
Taith Torfaen Anything Challenge	✓	X	X	X	X	X	X	X	X	✓	X
Torfaen Trail	✓	X	X	X	X	X	X	X	X	✓	X

Receptor	Ch 6: Landscape and Visual	Ch 7: Historic Env	Ch 8 Biodiversity	Ch 9: Ornithology	Ch 10: Water Env	Ch 11: Ground Con	Ch 12: Traffic & Transport	Ch 13: Noise	Ch 14: Shadow Flicker	Ch 15: Socio- economics	Ch 16: Other Issues
Sirhowy Valley Ridgeway Walk	✓	X	X	X	X	X	X	X	X	✓	X
Maes Manor Hotel Registered Park and Garden	✓	X	X	X	X	X	X	X	X	✓	X
Pen-y-Fan Pond Country Park	✓	X	X	X	X	X	X	X	X	✓	X
Sirhowy Valley Country Park	✓	X	X	X	X	X	X	X	X	✓	X
Parc Coetir Bargoed Country Park	✓	X	X	X	X	X	X	X	X	✓	X
Parc Penallta Country Park	✓	X	X	X	X	X	X	X	X	✓	X
A467	✓	X	X	X	X	X	✓	X	X	X	X
A4046	✓	X	X	X	X	X	✓	X	X	X	X
Footpath ABEC/FP205/1	X	X	X	X	X	X	✓	X	X	✓	X

Receptor	Ch 6: Landscape and Visual	Ch 7: Historic Env	Ch 8 Biodiversity	Ch 9: Ornithology	Ch 10: Water Env	Ch 11: Ground Con	Ch 12: Traffic & Transport	Ch 13: Noise	Ch 14: Shadow Flicker	Ch 15: Socio- economics	Ch 16: Other Issues
Restricted Byway ABEC/RBW189/1	X	X	X	X	X	X	✓	X	X	✓	X
Restricted Byway ABEC/RBW191/1	X	X	X	X	X	X	✓	X	X	✓	X
Restricted Byway ABEC/RBW192/1	X	X	X	X	X	X	✓	X	X	✓	X
Restricted Byway ABEC/RBW193/1	X	X	X	X	X	X	✓	X	X	✓	X
Restricted Byway ABEC/RBW194/1	X	X	X	X	X	X	✓	X	X	✓	X
Restricted Byway ABEC/RBW195/1	X	X	X	X	X	X	✓	X	X	✓	X
Restricted Byway ABEC/RBW195/2	X	X	X	X	X	X	✓	X	X	✓	X
Open Access Land and PRow within 5km of proposed turbines	✓	X	X	X	X	X	X	X	X	✓	X

Receptor	Ch 6: Landscape and Visual	Ch 7: Historic Env	Ch 8 Biodiversity	Ch 9: Ornithology	Ch 10: Water Env	Ch 11: Ground Con	Ch 12: Traffic & Transport	Ch 13: Noise	Ch 14: Shadow Flicker	Ch 15: Socio- economics	Ch 16: Other Issues
Human Receptors											
Rhyswg Fawr Farm	✓	X	X	X	✓	X	X	✓	✓	X	X
Tyn Y Ffynon	✓	X	X	X	X	X	X	✓	✓	X	X
Penrhiwgwair Farm	✓	X	X	X	X	X	X	X	✓	X	X
Cefn Rhyswg Farm	✓	X	X	X	X	X	X	✓	✓	X	X
Glan-Shon Farm	✓	X	X	X	X	X	X	✓	✓	X	X
Hillside, The Graig	X	X	X	X	X	X	X	✓	✓	X	X
Graigwen Bungalow	✓	X	X	X	X	X	X	✓	✓	X	X
1 to 6 Graig Wen Houses	✓	X	X	X	X	X	X	X	✓	X	X
Roxburgh Bungalow	✓	X	X	X	X	X	X	✓	✓	X	X

Receptor	Ch 6: Landscape and Visual	Ch 7: Historic Env	Ch 8 Biodiversity	Ch 9: Ornithology	Ch 10: Water Env	Ch 11: Ground Con	Ch 12: Traffic & Transport	Ch 13: Noise	Ch 14: Shadow Flicker	Ch 15: Socio- economics	Ch 16: Other Issues
68, Gwyddon Road	✓	X	X	X	X	X	X	✓	✓	X	X
Ecological Receptors											
Distillery Pond, Abercarn SINC	X	X	✓	X	✓	X	X	X	X	X	X
Gwyddon Valley Woodlands, Abercarn SINC	X	X	✓	✓	X	✓	X	X	X	X	X
Mynydd Maen, East of Newbridge SINC	X	X	✓	✓	✓	✓	X	X	X	X	X
Cwm Gofapi Woods, Cwmcarn SINC	X	X	✓	X	X	✓	X	X	X	X	X
Nant Carn	X	X	X	X	✓	✓	X	X	X	X	X
Nant Gofapi	X	X	X	X	✓	✓	X	X	X	X	X
Nant Gwyddon	X	X	X	X	✓	✓	X	X	X	X	X

Receptor	Ch 6: Landscape and Visual	Ch 7: Historic Env	Ch 8 Biodiversity	Ch 9: Ornithology	Ch 10: Water Env	Ch 11: Ground Con	Ch 12: Traffic & Transport	Ch 13: Noise	Ch 14: Shadow Flicker	Ch 15: Socio- economics	Ch 16: Other Issues
Ponds (aquatic environment features)	X	X	✓	X	✓	X	X	X	X	X	X

The receptors considered in this assessment are therefore:

Landscape/Visual and Environment Receptors:

- Cambrian Way (LVIA and Socio-economics);
- Celtic Way (LVIA and Socio-economics);
- Cistercian Way (LVIA and Socio-economics);
- Ebbw Valley Walk (LVIA and Socio-economics);
- Raven Walk (LVIA and Socio-economics);
- Rhymney Valley Ridgeway Walk (LVIA and Socio-economics);
- Taith Torfaen Anything Challenge (LVIA and Socio-economics);
- Torfaen Trail (LVIA and Socio-economics);
- Sirhowy Valley Ridgeway Walk (LVIA and Socio-economics);
- Pen-y-Fan Pond Country Park (LVIA and Socio-economics);
- Sirhowy Valley Country Park (LVIA and Socio-economics);
- Parc Coetir Bargoed Country Park (LVIA and Socio-economics);
- Parc Penallta Country Park (LVIA and Socio-economics);
- A467 (LVIA, Traffic & Transport and Socio-economics);
- A4046 (LVIA, Traffic & Transport and Socio-economics);
- ABEC/FP205/1 (Traffic & Transport and Socio-economics);
- ABEC/RBW189/1 (Traffic & Transport and Socio-economics);
- ABEC/RBW191/1 (Traffic & Transport and Socio-economics);
- ABEC/RBW192/1 (Traffic & Transport and Socio-economics);
- ABEC/RBW193/1 (Traffic & Transport and Socio-economics);
- ABEC/RBW194/1 (Traffic & Transport and Socio-economics);
- ABEC/RBW195/1 (Traffic & Transport and Socio-economics);
- ABEC/RBW195/2 (Traffic & Transport and Socio-economics); and
- Open Access Land and PRoW within 5km of proposed turbines (LVIA and Socio-economics).

Human/Residential Receptors:

- Rhyswg Fawr Farm (Landscape and Visual, Water Environment, Noise and Shadow Flicker);
- Tyn Y Ffynon (Landscape and Visual, Noise and Shadow Flicker);

- Penrhiwgwair Farm (Landscape and Visual and Shadow Flicker);
- Cefn Rhyswg Farm (Landscape and Visual, Noise and Shadow Flicker);
- Glan-Shon Farm (Landscape and Visual, Noise and Shadow Flicker);
- Hillside, the Grange (Noise and Shadow Flicker);
- Graigwen Bungalow (Landscape and Visual, Noise and Shadow Flicker);
- 1 to 6 Graigwen Bungalow (six individual properties) (Landscape and Visual, Noise and Shadow Flicker);
- Roxburgh Bungalow (Landscape and Visual, Noise and Shadow Flicker); and
- 68, Gwyddon Road (Landscape, Noise and Shadow Flicker).

Ecological Receptors:

- Gwyddon Valley Woodlands, Abercarn SINC (Biodiversity, Ornithology and Ground Conditions);
- Mynydd Maen, East of Newbridge SINC (Biodiversity, Ornithology and Ground Conditions);
- Cwm Gofapi Woods, Cwmcarn SINC (Biodiversity and Ground Conditions);
- Nant Carn (Water Environment and Ground Conditions);
- Nant Gofapi (Water Environment and Ground Conditions);
- Nant Gwyddon (Water Environment and Ground Conditions); and
- Waterbody P1 (Biodiversity and Water Environment).

Likely significant effects

17.7.10. The purpose of EIA is to identify and assess any likely significant effects that are material to the decision-making process. In order to maintain proportionality, and in accordance with the EIA Regulations 2017, this assessment therefore concentrates on where significant inter-related cumulative effects are likely to arise between topics considered in this Draft ES.

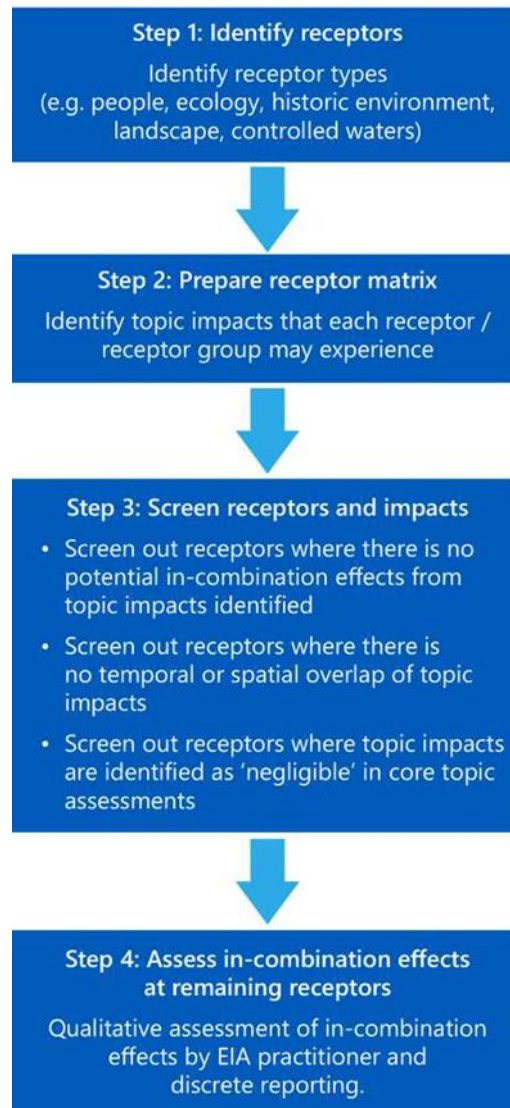
17.8 Assessment methodology

17.8.1. National policy guidance requires that all relevant effects should be considered objectively. However, existing policy guidance presently fails to provide advice on how such an objective assessment should be carried out.

17.8.2. There is no established, robust methodology for quantitatively assessing complex cross-topic inter-related effects and assigning a level of significance to them, as methodologies and criteria vary across environmental aspects. Therefore, the assessment of inter-related effects between topics is qualitative, relying on professional judgement as to how individual effects would interact.

17.8.3. The methodology adopted for this assessment is summarised in **Graphic 17.2** and is outlined in detail in the remainder of this section.

Graphic 17-2 Illustrative example of the spatial scope and study area for an example receptor.



17.8.4. Common receptors for environmental topics have been identified and consideration given to whether the topic effects on any common receptors are likely to combine. This has identified:

- The common receptor(s) from the individual topic assessments;
- The impact source pathways that can affect the common receptor(s);
- The potential effects on the identified common receptor(s); and
- The inter-related effects across the construction, operation and maintenance and decommissioning phases where appropriate.

17.8.5. It should be noted that some elements of the assessment inherently consider inter-related effects. For example, biodiversity assessment of effects takes into account the potential for multiple

impacts affecting particular features such as disturbance effects on faunal receptors resulting from noise and vibration, visual disturbance and lighting. Where this is the case, this is described within the individual environmental topic chapter.

17.9 Assessment of inter-related effects

Overview

- 17.9.1. The assessment of inter-related cumulative effects has focused on those receptors where potential significant effects have been predicted in respect of at least two or more topics and/or where the technical assessments have shown that potential individual effects are nearing the thresholds of established national criteria.
- 17.9.2. **Table 17.3** sets out where significant effects, or effects close to the threshold of significance, have been identified for each common receptor identified in **Table 17.2**.

Table 17.3 Common receptors and significance of identified effects

Receptor	Ch 6: Landscape and Visual	Ch 7: Historic Env	Ch 8 Biodiversity	Ch 9: Ornithology	Ch 10: Water Env	Ch 11: Ground Con	Ch 12: Traffic & Transport	Ch 13: Noise	Ch 14: Shadow Flicker	Ch 15: Socio- economics
Landscape/Visual and Environmental Receptors										
Cambrian Way	◆◆	X	X	X	X	X	X	X	X	
Celtic Way	◆◆	X	X	X	X	X	X	X	X	
Cistercian Way	◆◆	X	X	X	X	X	X	X	X	
Ebbw Valley Walk	◆◆	X	X	X	X	X	X	X	X	
Raven Walk	◆◆	X	X	X	X	X	X	X	X	
Rhymney Valley Ridgeway Walk	◆◆	X	X	X	X	X	X	X	X	
Taith Torfaen Anything Challenge	◆◆	X	X	X	X	X	X	X	X	
Torfaen Trail		X	X	X	X	X	X	X	X	
Sirhowy Valley Ridgeway Walk	◆◆	X	X	X	X	X	X	X	X	

Receptor	Ch 6: Landscape and Visual	Ch 7: Historic Env	Ch 8 Biodiversity	Ch 9: Ornithology	Ch 10: Water Env	Ch 11: Ground Con	Ch 12: Traffic & Transport	Ch 13: Noise	Ch 14: Shadow Flicker	Ch 15: Socio- economics
Maes Manor Hotel Registered Park and Garden	◆◆	X	X	X	X	X	X	X	X	
Pen-y-Fan Pond Country Park		X	X	X	X	X	X	X	X	
Sirhowy Valley Country Park	◆◆	X	X	X	X	X	X	X	X	
Parc Coetir Bargoed Country Park		X	X	X	X	X	X	X	X	
Parc Penallta Country Park		X	X	X	X	X	X	X	X	
A467	◆◆	X	X	X	X	X		X	X	X
A4046		X	X	X	X	X		X	X	X
Footpath ABEC/FP205/1	X	X	X	X	X	X		X	X	
Restricted Byway ABEC/RBW189/1	X	X	X	X	X	X		X	X	

Receptor	Ch 6: Landscape and Visual	Ch 7: Historic Env	Ch 8 Biodiversity	Ch 9: Ornithology	Ch 10: Water Env	Ch 11: Ground Con	Ch 12: Traffic & Transport	Ch 13: Noise	Ch 14: Shadow Flicker	Ch 15: Socio- economics
Restricted Byway ABEC/RBW191/1	X	X	X	X	X	X		X	X	
Restricted Byway ABEC/RBW192/1	X	X	X	X	X	X		X	X	
Restricted Byway ABEC/RBW193/1	X	X	X	X	X	X		X	X	
Restricted Byway ABEC/RBW194/1	X	X	X	X	X	X		X	X	
Restricted Byway ABEC/RBW195/1	X	X	X	X	X	X		X	X	
Restricted Byway ABEC/RBW195/2	X	X	X	X	X	X		X	X	
Open Access Land and PRow within 5km of proposed turbines	◆◆	X	X	X	X	X	X	X	X	
Open Access Land and PRow within 5km of proposed turbines	◆◆	X	X	X	X	X	X	X	X	

Receptor	Ch 6: Landscape and Visual	Ch 7: Historic Env	Ch 8 Biodiversity	Ch 9: Ornithology	Ch 10: Water Env	Ch 11: Ground Con	Ch 12: Traffic & Transport	Ch 13: Noise	Ch 14: Shadow Flicker	Ch 15: Socio- economics
Human Receptors										
Rhyswg Fawr Farm		X	X	X		X	X			X
Tyn Y Ffynon		X	X	X	X	X	X			X
Penrhiwgwair Farm		X	X	X	X	X	X	X		X
Cefn Rhyswg Farm		X	X	X	X	X	X			X
Glan-Shon Farm		X	X	X	X	X	X			X
Hillside, The Graig	X	X	X	X	X	X	X			X
Graigwen Bungalow		X	X	X	X	X	X			X
1 to 6 Graig Wen Houses		X	X	X	X	X	X	X		X
Roxburgh Bungalow		X	X	X	X	X	X			X
68, Gwyddon Road		X	X	X	X	X	X			X

Receptor	Ch 6: Landscape and Visual	Ch 7: Historic Env	Ch 8 Biodiversity	Ch 9: Ornithology	Ch 10: Water Env	Ch 11: Ground Con	Ch 12: Traffic & Transport	Ch 13: Noise	Ch 14: Shadow Flicker	Ch 15: Socio- economics
Ecological Receptors										
Distillery Pond, Abercarn	X	X		X		X	X	X	X	X
Gwyddon Valley Woodlands, Abercarn SINC	X	X			X		X	X	X	X
Mynydd Maen, East of Newbridge SINC	X	X			X		X	X	X	X
Cwm Gofapi Woods, Cwmcarn SINC	X	X		X	X		X	X	X	X
Nant Carn	X	X	X	X			X	X	X	X
Nant Gofapi	X	X	X	X			X	X	X	X
Nant Gwyddon	X	X	X	X			X	X	X	X
Ponds (aquatic environment features)	X	X		X		X	X	X	X	X

Key: Common receptors

◆: Effects close to significance threshold

◆◆: Significant effects

Preliminary assessment

- 17.9.3. The technical assessments (**Chapters 6-16**) in the Draft ES have identified potential effects on common receptors as a result of the Proposed Development, as summarised in **Table 17.3**. The table shows that zero common receptors are anticipated to experience more than one significant effect or effect close to the threshold of significance.

17.10 Preliminary significance conclusion

- 17.10.1. The preliminary assessment of inter-related cumulative effects has considered whether any of the individual environmental topic effects resulting from the Proposed Development could combine to create effects that are significant, on common receptors between technical topics. The preliminary assessment focused on those receptors where significant effects have been predicted in respect of at least two or more topics and/or where the technical assessments have shown that potential individual effects are nearing the thresholds of established national criteria.

17.11 Further work to be Undertaken

- 17.11.1. The assessment of inter-related cumulative effects will be revisited as part of the Final ES submission. A breakdown of the assessments to be undertaken in support of the Final ES, and subsequent limitations to this inter-related cumulative effects assessment is provided in **Section 17.1**.