



Craig Y Perthi Solar Farm Resubmission

Environmental Statement

Chapter 02: Approach to Environmental Impact Assessment

Prepared for

RWE

RWE Renewables UK

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Well House Barns, Chester Road, Bretton, Chester, CH4 0DH
1st Floor, Barfield House, Alderley Road, Wilmslow, SK9 1PL
Maling Exchange, Studio 305, Hoults Yard, Walker Road, Newcastle Upon Tyne, NE6 2HL

T: 0344 8700 007
enquiries@axis.co.uk
www.axis.co.uk

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2.0 APPROACH TO ENVIRONMENTAL IMPACT ASSESSMENT

2.1 Introduction

- 2.1.1 This chapter explains the approach adopted to the Environmental Impact Assessment ('EIA') of the Proposed Development. It identifies the legislative basis for the EIA, summarises the scoping process, explains how the Environmental Statement ('ES') satisfies the requirements of the EIA Regulations and sets out the overarching methodology applied across the technical assessments.
- 2.1.2 The chapter also describes the approach to establishing the environmental baseline, assessing likely significant effects, identifying mitigation and enhancement measures and considering cumulative, interrelated, indirect and transboundary effects.
- 2.1.3 This version of the ES has been prepared for statutory Pre-Application Consultation. The EIA will continue during and following consultation, and the methodologies, assessments and mitigation measures presented in the ES will be reviewed and updated where necessary before submission of the DNS application

2.2 Need for Environmental Impact Assessment

- 2.2.1 The requirement for EIA was prescribed by European law under Council Directive 85/337/EEC ('the EIA Directive'). This Directive has been amended four times, with the latest amendment, the Environmental Impact Assessment (EIA) Directive (2014/52/EU) entering into force on 15 May 2014.
- 2.2.2 Planning is a devolved matter, therefore each country of the United Kingdom is required to implement any updates to the EIA Directive into domestic legislation. In Wales, the Directive has been enacted most recently into law by the Town and Country Planning (Environmental Impact Assessment) Regulations 2017 [SI 2017 No. 571] – referred to hereafter as 'the EIA Regulations 2017'. These regulations came into force on the 16 May 2017.
- 2.2.3 The EIA Regulations prescribe the types of development for which EIA is mandatory (Schedule 1 development) and others that may require an assessment if they have the potential to give rise to significant environmental impacts (Schedule 2 development). The Proposed Development is for the construction and operation of an approximate 240 ha solar farm, which is covered by Schedule 2, Part 3(a) of the EIA Regulations:



a) “3 Energy Industry

b) Industrial installations for the production of electricity, steam and hot water (unless included in Schedule 1).

c) The area of the development exceeds 0.5 hectare.”

2.2.4 No formal EIA Screening Direction has been sought. Given the scale and location of the Proposed Development, and its potential to give rise to likely significant effects on environmental receptors, the Applicant has proceeded on the basis that EIA is required. This approach is consistent with the position adopted for the Previous Application and the advice provided by Newport City Council during the initial pre-application process.

2.2.5 The EIA considers the likely significant environmental effects of the Proposed Development during construction, operation and decommissioning. The resulting assessment is reported within this ES in accordance with the requirements of the EIA Regulations.

2.3 Scoping the Environmental Impact Assessment

2.3.1 Regulation 15 of the EIA Regulations provides that a prospective applicant for a Development of National Significance may request a Scoping Direction from the Welsh Ministers. A Scoping Direction identifies the information that, in the opinion of the Welsh Ministers, should be included within the Environmental Statement.

2.3.2 A Scoping Report for the Previous Application was submitted to Planning and Environment Decisions Wales (‘PEDW’) on 22 December 2022. PEDW issued a Scoping Direction on 25 May 2023, following consultation with the relevant statutory consultation bodies.

2.3.3 The EIA for the Previous Application was undertaken having regard to that Scoping Direction. The Environmental Statement submitted in April 2024 included a schedule identifying the matters raised by PEDW and the statutory consultation bodies and explaining how they had been addressed through the assessment, design or supporting documents.

2.3.4 Regulation 17(4)(c) of the EIA Regulations requires an Environmental Statement to be based on the most recent Scoping Direction, insofar as the proposed



- development remains materially the same as the development that was the subject of that Direction.
- 2.3.5 The Proposed Development differs materially from the Previous Application, principally through the reduction in the Site area, the removal of all development from the Gwent Levels – Redwick and Llandevenny SSSI, the removal of the battery energy storage system and central inverter infrastructure and the revision of the landscape and ecological proposals.
- 2.3.6 A revised Scoping Report was therefore prepared and submitted to PEDW in July 2026. The revised report was informed by:
- i) the December 2022 Scoping Report and May 2023 Scoping Direction;
 - ii) the assessments undertaken for the Previous Application;
 - iii) consultation responses received during the previous EIA and DNS processes;
 - iv) matters considered during the March 2025 examination hearings;
 - v) the Inspector's Report and the Welsh Ministers' decision; and
 - vi) the revised design of the Proposed Development.
- 2.3.7 The revised Scoping Report identified the environmental topics for which likely significant effects could arise and should therefore be assessed in detail within the ES. It also identified topics for which significant effects were not anticipated and proposed that these should be scoped out as standalone assessments, while still being addressed where relevant within the description of the Proposed Development or other technical chapters.
- 2.3.8 This PAC version of the ES has been prepared having regard to the revised Scoping Report and the assessment work available at the commencement of consultation. When the revised Scoping Direction has been received before publication, its requirements will also be taken into account in the submission version of the ES.
- 2.3.9 Following PAC, the scope and content of the EIA will be reviewed having regard to any revised Scoping Direction, consultation responses, completed survey work and any further refinement of the Proposed Development. A Scoping Direction Response Schedule will accompany the submitted ES, identifying how each relevant matter has been addressed.
- 2.3.10 The principal scoping documents are provided as follows:



- i) Appendix 2.1 – Revised EIA Scoping Report;
- ii) Appendix 2.2 – Revised PEDW Scoping Direction; and
- iii) Appendix 2.3 – Scoping Direction Response Schedule.

2.4 Contents of the Environmental Statement – Revised Text

- 2.4.1 Regulation 17 and Schedule 4 of the EIA Regulations identify the information that must be included within an Environmental Statement. Table 2.1 identifies where each of the Schedule 4 requirements is addressed within this ES.
- 2.4.2 The ES should be read as a whole. Information relevant to a particular Schedule 4 requirement may be presented within more than one chapter or supporting technical appendix, reflecting the interrelated nature of environmental effects.
- 2.4.3 This version of the ES has been prepared for statutory Pre-Application Consultation. The table will be reviewed and updated before submission of the DNS application to reflect the final assessments, appendices and chapter cross-references.

Table 2.1 Review of Schedule 4 Requirements

Para	Schedule 4 Requirement	Location within the ES
1	Description of the development, including in particular— (a) a description of the location of the development; (b) a description of the physical characteristics of the whole development, including, where relevant, requisite demolition works and the land-use requirements during the construction and operational phases; (c) a description of the main characteristics of the operational phase of the development (in particular any production process), for instance, energy demand and energy used, nature and quantity of the materials and natural resources (including water, land, soil and biodiversity) used; (d) an estimate, by type and quantity, of expected residues and emissions (such as water, air, oil and subsoil pollution, noise, vibration, light, heat, radiation) and quantities and types of waste produced during the construction and operational phases.	(a) Chapter 2.0 (b & c) Chapter 4.0. (d) Chapter 4.0 as it relates to the scheme description and within Chapters 5.0 to 9.0 as it relates to individual topic areas.
2	A description of the reasonable alternatives (for example in terms of development design, technology, location, size and scale) studied by the applicant or appellant which are relevant to the proposed development and its specific characteristics and an indication of the main reasons for selecting the chosen option, including a comparison of the environmental effects.	Chapter 3.0 provides a description of the alternatives considered as part of the iterative design process.
3	A description of the relevant aspects of the current state of the environment (baseline scenario) and an outline of the likely evolution thereof without implementation of the development as far as natural changes from the baseline scenario can be assessed with reasonable effort on the basis	Chapters 5.0 to 9.0 as it relates to individual topic areas.

Para	Schedule 4 Requirement	Location within the ES
	of the availability of environmental information and scientific knowledge.	
4	A description of the factors specified in regulation 4(2) likely to be significantly affected by the development: population, human health, biodiversity (for example fauna and flora), land (for example land take), soil (for example organic matter, erosion, compaction, sealing), water (for example hydromorphological changes, quantity and quality), air, climate (for example greenhouse gas emissions, impacts relevant to adaptation), material assets, cultural heritage, including architectural and archaeological aspects, and landscape.	Chapters 5.0 to 9.0 as they relate to individual topic areas. Matters relating to human health are addressed in topic specific chapters e.g., Hydrology and Flood Risk
5	A description of the likely significant effects of the development on the environment resulting from, inter alia— (a) the construction and existence of the development, including, where relevant, demolition works; (b) the use of natural resources in particular land, soil, water and biodiversity, considering as far as possible the sustainable availability of these resources; (c) the emission of pollutants, noise, vibration, light, heat and radiation, the creation of nuisances and the disposal and recovery of waste, (d) the risks to human health, cultural heritage or the environment (for example due to accidents or disasters); (e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources; (f) the impact of the project on climate (for example the nature and magnitude of greenhouse gas emissions) and the vulnerability of the project to climate change; (g) the technologies and the substances used. 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. This description should take into account the environmental protection objectives established at European Union or Member State level which are relevant to the project, including in particular those established under Council Directive 92/43/EEC(1) and Directive 2009/147/EC(2).	Chapter 4.0 as it relates to the scheme description and within Chapters 5.0 to 9.0 as it relates to individual topic areas.
6	A description of the forecasting methods or evidence used to identify and assess the effects on the environment, including details of difficulties (for example technical deficiencies or lack of knowledge) encountered compiling the required information and the main uncertainties involved.	The overall EIA methodology and approach to assessment is described in Chapter 2.0. The specific technical methodologies used to identify and assess effects are fully described (or referenced) within

Para	Schedule 4 Requirement	Location within the ES
		Chapters 5.0 to 9.0 as they relate to individual topic areas.
7	A description of the measures envisaged to avoid, prevent, reduce or, if possible, offset any identified significant adverse effects on the environment and, where appropriate, of any proposed monitoring arrangements (for example the preparation of a post-project analysis). That description should explain the extent, to which significant adverse effects on the environment are avoided, prevented, reduced or offset, and should cover both the construction and operational phases.	'Embedded Mitigation' which forms part of the scheme design is described in Chapters 5.4 to 9.4. Secondary mitigation measures, as they apply to individual environmental topic areas, are described in Chapters 5.6 to 9.6,
8	A description of the expected significant adverse effects of the development on the environment deriving from the vulnerability of the development to risks of major accidents and/or disasters which are relevant to the project concerned. Relevant information available and obtained through risk assessments pursuant to European Union legislation such as Directive 2012/18/EU of the European Parliament and of the Council or Council Directive 2009/71/Euratom or relevant assessments carried out pursuant to national legislation may be used for this purpose provided that the requirements of the Directive are met. Where appropriate, this description should include measures envisaged to prevent or mitigate the significant adverse effects of such events on the environment and details of the preparedness for and proposed response to such emergencies.	Chapter 4.0 describes how the Proposed Development is resilient to major accidents and disasters and therefore why it is unlikely that significant environmental effects would arise in relation to this.
9	A non-technical summary of the information provided under paragraphs 1 to 8.	A separate Non-Technical Summary is contained as ES Volume 1.
10	A reference list detailing the sources used for the descriptions and assessments included in the environmental statement.	References are provided as footnotes and / or reference document lists within, or at the end of each ES Chapter, as appropriate.

2.4.4 The ES is supported by figures and technical appendices containing the plans, survey information, calculations and detailed assessments relied upon in reaching its conclusions. Its overall volume and chapter structure is described in Section 1.8.

2.4.5 The assessment has been proportionate to the characteristics of the Proposed Development and the likelihood of significant environmental effects. Matters for which significant effects are not anticipated have not been subject to standalone



technical chapters but have been considered and reported where necessary to demonstrate that their potential relevance has been addressed.

- 2.4.6 The final ES will be updated following PAC to incorporate relevant consultation responses, completed assessment work, any amendments to the Proposed Development and the final Scoping Direction Response Schedule. The revised Scoping Report provides the basis for the proposed scope and identifies where matters are addressed outside standalone technical chapters.

2.5 EIA methodology

- 2.5.1 The approach to EIA is not standardised, but there are established, and recognised approaches set out by the Government and professional institutions as to methods to be used for the assessment of environmental effects. Where appropriate, the environmental effects of the Proposed Development have been assessed using definitive standards, legislation and guidance applicable to each of the technical areas covered within this ES.

- 2.5.2 In order to provide a clear and robust assessment each of the technical chapters presented within the ES follows the structure set out in the subsequent paragraphs.

Introduction

- 2.5.3 A brief summary of the approach to the topic is provided outlining any key issues relevant to the subject area being assessed.

Methodology

- 2.5.4 This section provides details of the assessment method followed, and provides the following information:

- i) a description of any relevant legislation, policy or guidance which has been taken into account in the assessment.
- ii) the findings from any consultations undertaken to date.
- iii) the approach taken to gathering of any desk-based or field data. Where specific surveys have been undertaken an outline of the survey methodology is provided.
- iv) the approach to the impact assessment is defined. This includes how the particular topic has defined impact magnitude, receptor sensitivity and how these relate to the overall level effect / significance.
- v) any limitations or assumptions made in the assessment.



Baseline

- 2.5.5 This section of the chapter provides a description of the baseline conditions at the Site and its environs, relevant to the topic being assessed. The baseline conditions have been established through consultation, collation and analysis of existing data sets and reports, and in some cases site specific field data. The baseline identifies any sensitive receptors that will need to be evaluated in the assessment.
- 2.5.6 Where relevant and appropriate the likely future state of the environment is set out by predicting future change in the baseline conditions in the absence of the Proposed Development, in line with current guidance . The future baseline is then taken into account when assessing the likely effects of the project over its operational lifetime.

Assessment of Effects

- 2.5.7 This section of the chapter describes the likely significant environmental effects of the Proposed Development on the baseline condition at the Site and its environs, relevant to the assessment topic. As indicated above, the assessment considers potential future changes in the baseline environment where relevant. The assessment includes a description of the nature, extent and significance of these effects. The assessment considers the embedded mitigation measures that have been specifically incorporated into the Proposed Development to reduce environmental effects of the project.
- 2.5.8 The Applicant is applying for a temporary, yet generational development, for 40 years, therefore the assessment of effects will consider the construction, operational and decommissioning phases of the Proposed Development.
- 2.5.9 The EIA Regulations do not provide definitive methods for the assessment of significance and a variety of methods are employed within EIA methodologies. The method used to assess the effects is specific to each discipline. Where available and appropriate, the assessments follow impact assessment criteria and methodology set out by relevant professional institutions. Where such guidance is not available, or prescriptive methods are not set out by the relevant professional body, then assessment criteria have been developed by the technical specialists to enable a clear and structured assessment to be undertaken.



- 2.5.10 The level of the effect is, in general, derived by considering the magnitude of the impact and the sensitivity of the receptor to a change resulting from the Proposed Development.
- 2.5.11 Depending on the discipline there are several factors that need to be considered when establishing the type and magnitude of an effect, including:
- i) Whether the effect is adverse or beneficial.
 - ii) Whether it is temporary or permanent.
 - iii) Extent or spatial scale of the effect.
 - iv) Duration of the effect.
 - v) Whether the effect is reversible.
 - vi) Probability / likelihood of the effect.
- 2.5.12 Similarly, the sensitivity of a receptor is the function of several elements dependent on the discipline and effect being assessed, these could include:
- i) Designation and legal status.
 - ii) Quality.
 - iii) Rarity.
 - iv) Importance.
 - v) Ability to adapt to change.
- 2.5.13 Having established the magnitude of the effect and the sensitivity of the receptor, the significance of the effect is then defined. For some disciplines, a matrix is used to classify the level of effect by correlating magnitude and sensitivity, as shown in Table 2.2.

Table 2.2 Example Significance of Effect Matrix

		Magnitude of Impact Severity			
		High	Medium	Low	Negligible
Receptor Sensitivity	High	Major	Moderate	Minor to Moderate	Negligible or Minor
	Medium	Moderate	Minor to Moderate	Minor	Negligible
	Low	Minor to Moderate	Minor	Negligible or Minor	Negligible
	2013	Negligible or Minor	Negligible	Negligible	Negligible
	Negligible	Major	Moderate	Minor to Moderate	Negligible or Minor

- 2.5.14 Where a matrix is not used, the magnitude of change and the sensitivity of the receptor is used to make a reasoned professional judgement to establish the level of the effect and whether it is significant or not.
- 2.5.15 Where the findings of an assessment are set out as different levels of effect (e.g., major, moderate, minor, etc.) the assessment clearly sets out where an effect is significant. This may vary between disciplines and the threshold is defined within each chapter. This approach is used to assist the decision maker, consultees and other interested parties in establishing the most important environmental effects of the Proposed Development.
- 2.5.16 There is no statutory definition of what level of effect is to be regarded as significant and there is often not a single, definitive, correct answer as to whether an effect is significant or not. Generally, in EIA terms, a significance of effect of 'Moderate' or above would be deemed significant.
- 2.5.17 A significant effect does not necessarily mean that such an effect is unacceptable to decision-makers nor necessarily results in a breach of planning policy. This is a matter to be weighed in the planning balance alongside other material considerations¹. What is important is that the likely significant environmental effects of any proposal are transparently assessed and described in sufficient detail to

¹ A material consideration is a matter that should be taken into account in deciding a planning application or on an appeal against a planning decision <https://www.planningportal.co.uk/services/help/fag/planning/about-the-planning-system/what-are-material-considerations> Accessed 7 October 2022.

enable the determining authority to make a balanced and well-informed judgement as part of the decision-making process.

- 2.5.18 In all instances, the assessments contained within this ES set out the basis of the judgements made so that the readers of the ES can see the weight attached to the different factors and can understand the rationale of the assessment. In this sense the ES clearly explains how the significance of effects has been derived.

Mitigation

- 2.5.19 It is a requirement of the EIA Regulations to describe the measures envisaged to avoid, prevent, reduce and where possible offset any significant effects on the environment. Mitigation measures can be used to reduce or avoid any adverse effect, whether that effect is deemed to be 'significant' or not.

Mitigation Hierarchy

- 2.5.20 Mitigation can be achieved in several ways. The Institute of Environmental Management (IEMA) Impact Assessment Guidelines document 'Implementing the Mitigation Hierarchy from Concept to Construction (2024)' describes the concept and implementation of the 'mitigation hierarchy' as follows (illustrated at Image 2.1):

"A systematic approach used to minimise adverse effects of a project or scheme on the environment and people. It is a series of steps or principles to guide decision-making and prioritise activity. The hierarchy comprises four stages, with the most desirable first: avoid, prevent, reduce and, finally, offset. The hierarchy indicates that avoidance is the priority and offsetting should only be relied on as a last resort. For definitions of these terms within the hierarchy."

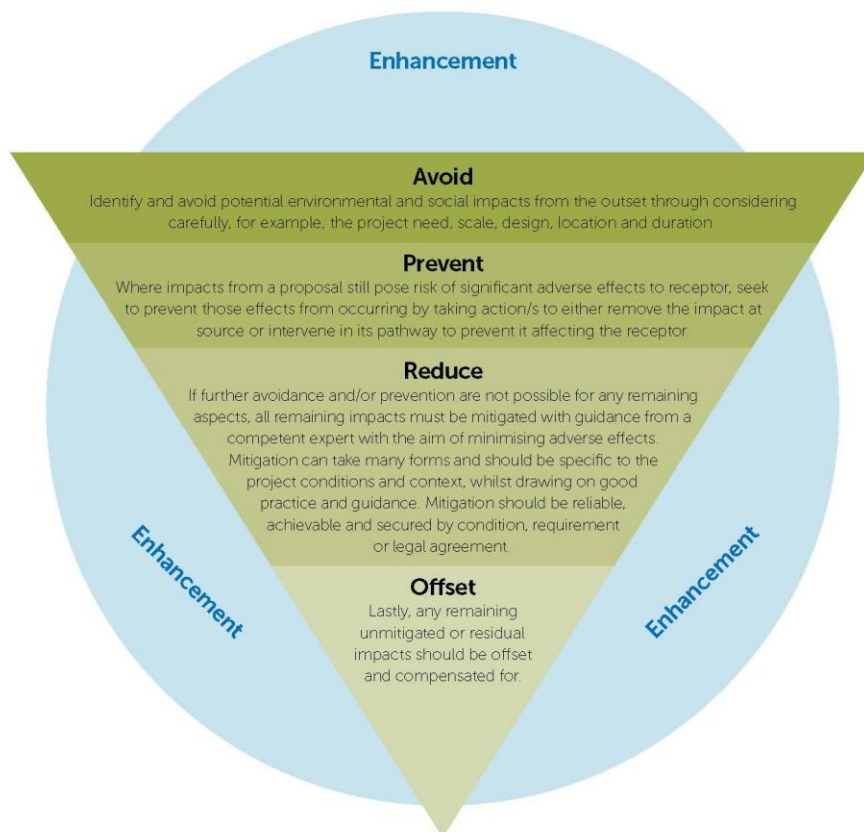


Image 2.1 – The Mitigation Hierarchy

Classified Mitigation

2.5.21 The IEMA Impact Assessment Guidelines document ‘Implementing the Mitigation Hierarchy from Concept to Construction (2024)’ states that: *“classifying mitigation measures into one of three key types helps to achieve a more proportionate ES, as it allows for some mitigation measures to be taken-as-read in assessing effects (i.e. these mitigations are embedded intrinsically into the project design as set out in the project description.”* Within the Guidance, there are three distinct forms of mitigation as follows:

- i) **Primary (inherent):**
 - An inherent part of the project design and should be described in the design evolution narrative and included in the project description.
- ii) **Secondary (foreseeable):**
 - Requires further activity to achieve the anticipated outcome – typically, these will be described in the ES chapters but often secured through planning conditions, requirements, and/or management plans.

- iii) Tertiary (inexorable):
 - o Required regardless of any EIA assessment as it is imposed, for example, because of legislative requirements and/or standard sectoral practices.

Enhancement

- 2.5.22 Enhancement can be considered as environmental gains that are not required as a form of mitigation. The IEMA Impact Assessment Guidelines document states with respect to enhancement that: *“outside of specific requirements for biodiversity net gain.....there is no regulatory driver for securing overall environmental gain through development. However, the EIA process is likely to gather information that could allow a developer to build effective and valuable environmental benefits into the design of their project. Such benefits can help enable development and provide reasons for communities and wider stakeholders to support the developer’s aspirations for the site.”*

Initial Development Design and Impact Avoidance/Reduction Measures

- 2.5.23 Each ES topic chapter contains a section entitled ‘Initial Development Design and Impact Avoidance/Reduction Measures’ which describes mitigation measures identified at the commencement of the EIA assessment process to avoid, prevent, reduce, or offset likely adverse effects from the Proposed Development.
- 2.5.24 Mitigation from all three mitigation classifications is identified as ‘Initial Development Design and Impact Avoidance/Reduction Measures’; an example of each (specific to the Proposed Development) is provided below:
- i) **Primary** – careful siting of the proposed structures as far as reasonably practicable from the nearest residential receptors to minimise amenity effects.
 - ii) **Secondary** – provision of a Construction Environmental Management Plan (CEMP) with detailed management plans for task and/or environmental receiver specific to be produced by the Principal Contractor (PC) post-consent. It should be noted that the requirement for a CEMP was identified at the EIA scoping stage (prior to the commencement of the EIA assessment process). As such, an Outline CEMP document has been produced for this DNS application, which will be subject to planning condition, adopted by the PC and expanded to include a series of detailed management plans. The Outline CEMP is therefore classified



as primary mitigation, with the detailed CEMP (which will be a 'live' document) also classified as secondary mitigation.

- iii) **Tertiary** – compliance with the relevant aspects of Guidance for Pollution Prevention documents, and BS5228: 2009+A1 'Code of Practice for Noise and Vibration Control on Construction and Open Sites. It should be noted that tertiary mitigation typically (but not exclusively) apply to the construction phase; as such tertiary mitigation for this project is also detailed in the Outline CEMP, which means that such tertiary mitigation is also secondary mitigation.

- 2.5.25 Where relevant, primary mitigation will be described in ES Chapter 4.0 (The Proposed Development), where it is an inherent part of the Proposed Development design. Mitigation measures identified as 'Initial Development Design and Impact Avoidance/Reduction Measures' have been considered when coming to a judgement of the likely significance of the effects of the Proposed Development.

Further Mitigation and Monitoring

- 2.5.26 Each ES topic chapter will contain a section entitled 'Further Mitigation and Monitoring' which describes further mitigation measures identified after the completion of the initial EIA assessment process to avoid, prevent, reduce, or offset likely adverse effects from the Proposed Development. Such mitigation measures can be classified as primary or secondary (they are not tertiary as such measures will be implemented regardless of the outcome of the EIA assessment process).
- 2.5.27 Mitigation measures identified as 'Further Mitigation and Monitoring' include an explanation as to how their implementation would mitigate/reduce the identified effects of the Proposed Development.
- 2.5.28 The residual effects (after the implementation of 'Further Mitigation and Monitoring') are described in in each topic chapter. The likely significant residual effects will be summarised in ES Chapter 9.0 (Summary of Environmental Effects).

Enhancement

- 2.5.29 Each ES topic chapter will contain a section entitled 'Enhancement Measures' which, where relevant, describes enhancement measures deemed to be proportionate and relevant to the Proposed Development which would provide notable benefits.

2.6 Cumulative Effects



- 2.6.1 Schedule 4, Paragraph 5(e) of the EIA Regulations requires that the ES include:

'A description of the likely significant effects of the development on the environment resulting from...

... (e) the cumulation of effects with other existing and/or approved projects, taking into account any existing environmental problems relating to areas of particular environmental importance likely to be affected or the use of natural resources'.

- 2.6.2 The EIA Regulations do not define cumulative effects. However, a commonly accepted description is:

'Impacts that result from incremental changes caused by other past, present or reasonably foreseeable actions together with the project' (European Commission, 1999).

Types of Cumulative Effect

- 2.6.3 Two major types of cumulative effect are generally recognised, '*Intra-project*' and '*Inter-project*' effects.

Intra-project Effects

- 2.6.4 Intra-Project cumulative effects (or the in-combination effects) between environmental disciplines are inherently considered in each environmental topic ES chapter. For example, topic areas such as biodiversity and noise and vibration cannot be considered in isolation since changes affecting one topic area also have the potential for implications for other topic areas. Additionally, effects upon the setting of heritage assets may derive from change in view (i.e. a visual effect) or change in noise levels (i.e. a noise effect). The ES identifies potential interactions between environmental topic areas where relevant (under the sub-heading '*Inter-Relationship of Potential Effects*').

Inter-project Effects

- 2.6.5 Inter-project effects are those that occur because of the likely effects of the Proposed Development interacting with the likely effects of other development in the vicinity. For example, construction and/or operation traffic effects of the Proposed Development combined with the construction and/or operation traffic effects of



another major development using the same access routes may result in cumulative effects on the surrounding highway network.

- 2.6.6 For the purpose of the EIA process, inter-project effects will be referred to as ‘cumulative effects’ and will be considered in each of the environmental topic ES chapters (under the heading ‘Cumulative Effects’). The method provided below describes how other projects have been identified for the consideration of cumulative effects.

Methodology for cumulative assessments

- 2.6.7 There is no defined methodology in the UK as to how cumulative effects should be assessed. In determining the approach to be adopted to this element of the assessment, reference is made to the following guidance:

- i) Guidelines for the Assessment of Indirect and Cumulative Impacts as well as Impact Interactions (European Commission 1999).
- ii) Cumulative Effects Assessment Practitioners Guide (Canadian Environmental Assessment Agency 1999).
- iii) Guidelines for Environmental Impact Assessment (Institute of Environmental Management and Assessment 2006).
- iv) The State of Environmental Impact Assessment Practice in the UK (Institute of Environmental Management and Assessment 2011).
- v) DNS Guidance Appendix 3 (Environmental Impact Assessment).

Identification of Cumulative Developments

- 2.6.8 Paragraph 5(e) of Schedule 4 of the EIA Regulations requires a:

“description of the likely significant effects of the development on the environment resulting from the culmination of effects with other existing and/or approved projects.”

- 2.6.9 In this regard the regulations are specific about the projects that should be considered to result in cumulative effects i.e., existing and/or approved projects. However, it is proposed to also include projects that are currently awaiting determination within the cumulative assessment as there is a possibility that these projects could be approved whilst the application for the Proposed Development is



being determined. Accordingly, the assessment of cumulative impacts will encompass the effects of the Proposed Development in combination with relevant:

- i) existing development, under construction.
- ii) approved development, awaiting implementation.
- iii) schemes awaiting determination within the planning process.

2.6.10 The presence of operational schemes (and for some disciplines, schemes that are under construction, but not yet operational) is an established influence upon the environment, that will be considered when determining the baseline for the non-cumulative assessment for each discipline chapter. The non-cumulative assessment of effects will have full regard to the presence of such schemes when arriving at any conclusions.

2.6.11 As such, the additional schemes that would form part of the assessment of cumulative effects will be major projects that have either been granted planning consent but have not yet been constructed and major projects for which a planning application is awaiting determination. Major projects are developments that are one or more of the following²:

“a) the winning and working of minerals or the use of land for mineral-working deposits;

(b) waste development;

(c) the provision of dwellinghouses where—

(i) the number of dwellinghouses to be provided is 10 or more; or

(ii) the development is to be carried out on a site having an area of 0.5 hectares or more and it is not known whether the development falls within sub-paragraph (c)(i);

(d) the provision of a building or buildings where the floor space to be created by the development is 1,000 square metres or more; or

(e) development carried out on a site having an area of 1 hectare or more.”

² The Town and Country Planning (Development Management Procedure) (Wales) Order 2012



- 2.6.12 Projects that fall outside the above criteria will only be included in the assessment if specifically identified by stakeholders and agreed as material to the ES.
- 2.6.13 Each topic will have a different spatial zone where potential cumulative significant effects could occur. A preliminary search area of 2.5 km from the Site has been used to identify schemes that have the potential to result in cumulative effects.
- 2.6.14 As the NCC planning website does not contain a 'map search' function to identify planning applications, engagement with the NCC Planning Department during the pre-application process, and the use of third-party planning resources, helped identify and agree a list of other projects within the NCC administrative area that qualified as cumulative developments. Additionally, a search was undertaken on the PEDW casework website to identify any other Developments of National Significance that may interact with the Proposed development either during construction or operation. Finally, Local Development Plan Allocations were reviewed to identify the scale and delivery timeframes of any plan-led development to identify where these could coincide with the delivery of the proposed development.
- 2.6.15 The list of identified cumulative development is set out in Table 2.3 below. The consideration of the potential for cumulative effects is considered in each of the environmental topic ES chapters (under the heading 'Cumulative Effects').

Table 2.3 Cumulative Developments

Name of Development	Description of Development
Rush Wall Solar Farm - Land near the village of Redwick, south-east of Newport, Wales on the Caldicot Levels DNS application - 3220457 (PEDW)	The installation of a solar park with an approximate design capacity of 75MW. Development includes ancillary electrical equipment and infrastructure, access tracks, security fencing and CCTV.
Magor Net Zero - Land Adjacent to Brewery House Magor Brewery Newport Road Magor Monmouthshire NP26 3DJ EIA Scoping Stage (PEDW)	Proposed solar and wind power facility at a location south of the brewery; including ground-mounted solar PV, wind turbine, hydrogen electrolyzers, hydrogen and energy storage and ancillary and associated infrastructure and cabling.
Land at Vinegar Hill, Undy - Land At Vinegar Hill Vinegar Hill Undy Monmouthshire Planning Ref - DM/2019/01937 (Monmouthshire County Council)	Outline planning application for up to 155 dwellings, associated open space and infrastructure with all matters excluding access reserved, of which full planning permission is sought for 72 dwellings, associated open space and infrastructure.
Rockfield Farm, Undy - Rockfield Farm, The Elms, Undy, Caldicot, Monmouthshire, NP26 3EL	Master planned development of 13.8 hectares of land for residential use and employment use; up to 266 Proposed residential units and approximately 5575 square meters of B1 floor space.

Name of Development	Description of Development
Planning Ref - DC/2016/00883 (Monmouthshire County Council)	
Magor Brewery - Newport Road Magor Caldicot Monmouthshire NP26 3RA Planning Ref - DM/2020/00103 (Monmouthshire County Council)	Erection of sixteen fermentation vessels, enclosed supporting structure and external stairs; extension of existing high level access walkway; earth works; and temporary works including re-use of existing car park as vessel assembly site, creation of two temporary replacement car parks, temporary site roads and walkways, and associated works.
Glan Llyn Development Site - Queensway Llanwern Newport South Wales (Newport City Council)	Comprehensive regeneration of former Newport Llanwern Steelworks for residential, business and community development. Numerous applications dating back to the original outline application in 2006.
Llanwern Village Planning Ref - 13/0806 amending 06/0845 (Newport City Council)	13/0806 variation of condition (time limits) of planning permission 06/0845 for residential development (up to 1100 dwellings) and provision of primary school, village centre, public open space, landscaping and associated infrastructure works (affecting Public Rights of Way 397/3, 397/7, 397/9 AND 397/10).
Future Energy, Llanwern (Newport City Council) Development Consent Order - Case Reference EN010171	Construction, operation, maintenance and decommissioning of Future Energy Llanwern, a ground mounted solar farm with a generating capacity of over 350 MW for a temporary period of 40 years.
Ringland Centre Ringland Circle Newport Planning ref – 18/1181 (Newport City Council)	Outline planning permission with all matters reserved for demolition of Ringland Centre, 6no. bungalows and library and construction of approximately 170no. homes and 1700 square metres of a1/a2/a3 floorspace, landscaping, internal road network, car parking and associated infrastructure.

2.6.16 As reported in Table 5.2, there are nine developments that have been identified that have the potential to give rise to significant cumulative environmental effects in conjunction within the Proposed Development. Figure 5 Cumulative Developments highlights the location of these developments, along with operational renewable energy projects that may give rise to cumulative effects during operation. These cumulative developments will be assessed within the individual technical chapters of the ES.

2.7 Potential Indirect “Upstream / Downstream Effects” (Finch Judgment)

2.7.1 On 20 June 2024, the Supreme Court handed down a majority judgement on R v Surrey County Council and others (on the application of Finch on behalf of the Weald Action Group), hereafter referred to as the Finch judgment. As described below, this



- has material implications for EIA and, specifically, the need to clearly consider likely significant environmental impacts of a development arising from potential indirect upstream and / or downstream effects.
- 2.7.2 In order to evaluate whether the Proposed Development could give rise to indirect upstream / downstream effects, it is considered important to understand the main findings of the Finch judgment.
- 2.7.3 The case related, specifically, to an application to Surrey County Council for planning permission to expand existing oil production from a well site at Horse Hill near Horley in Surrey. The proposed project relates to the extraction of oil from six wells over a period of 20 years. The application was mandatorily supported by an Environmental Impact Assessment (EIA).
- 2.7.4 The developer argued that, with regard to the impact of the project on climate, the scope of the EIA should be confined to the direct releases of greenhouse gases from within the well site boundary, during the lifetime of the project; and that the EIA need not include an assessment of the greenhouse gas emissions that would occur when the oil extracted from the wells was, ultimately, burnt elsewhere as fuel. The Council accepted this position and granted planning permission.
- 2.7.5 The claimant (Ms Finch) applied for judicial review of the Council's decision. She argued that the decision was unlawful because the EIA was required to, but did not, include an assessment of the combustion emissions. The claim was rejected by the High Court and, subsequently, the Court of Appeal upheld the judge's decision.
- 2.7.6 The claimant then appealed to the Supreme Court, who allowed the appeal by a three-to-two majority and held that the Council's decision was unlawful because the emissions that would occur when the oil produced is burnt as fuel are within the scope of the EIA required by law.
- 2.7.7 In short, in order to comply with Regulation 4(2) and Schedule 4 of the EIA Regulations, specifically, in relation to the provision of a description of the likely significant direct and 'indirect' effects, the EIA process should have considered the 'downstream' effects of the oil extraction. Specific to such assessment in this case was that, if the project goes ahead, it is not merely likely but inevitable that the oil produced from the well site will be refined and, as an end product, eventually undergo combustion, and that combustion will produce greenhouse gas emissions. There

was consensus that those emissions would have a significant impact upon climate and that the amount of these emissions could be estimated using an established methodology.

- 2.7.8 It is acknowledged that the judgment is applicable outside of the sphere of fossil fuel extraction development. However, there are in essence three questions to determine whether an EIA is required to assess indirect upstream and / or downstream effects. If all of the questions give rise to a positive response (i.e. yes) then the EIA for the project must assess the upstream and / or downstream effects. If the answer to any of the questions is negative (i.e. no), then no such assessment is required.

The questions are:

- iv) Would the development give rise to inevitable indirect upstream or downstream effects i.e. would there be inevitable causation?
- v) Is it possible to undertake evidence-based meaningful assessment of the effects?
- vi) Will an assessment reasonably conclude likely significant effect(s)?

- 2.7.9 With regard to the Proposed Development, and the first question, The Applicant's position is as follows:

- vii) There is a recognised need for renewable energy to facilitate the pathways to meet predicted future energy demand.
- viii) The Proposed Development would be a contributing factor to these pathways, therefore it is considered a required component of future UK electricity demand, which would otherwise be provided by other renewable energy developments.
- ix) The Proposed Development would utilise products and services already available within the market sector, meaning there would be no tangible impact on International manufacturing processes.
- x) There are no end-user emissions resulting from the use of electricity produced by the Proposed Development.

- 2.7.10 Given the above points, it has been concluded that no further consideration needs to be given to upstream / downstream effects, as part of the EIA process.



2.8 Transboundary Effects

- 2.8.1 An initial transboundary screening exercise for the Proposed Development under Regulation 56 of the EIA Regulations has been undertaken. The Proposed Development is not likely to have a significant effect either alone or cumulatively on the environment in any European Economic Area (EEA) state.
- 2.8.2 The nearest EEA states are the Republic of Ireland at approximately 250 km west and France at over 300 km south-east of the Proposed Development site. Taking into account the potential pollution impact pathways through air, land and water, and the effects predicted to arise from the Proposed Development, the likelihood of significant effects on the environment of another EEA state is considered negligible. Therefore, significant transboundary effects associated with the Proposed Development are not anticipated.

2.9 PAC and Finalisation of the Assessment

- 2.9.1 This version of the ES presents the assessment undertaken using the design, baseline information and technical work available at the commencement of PAC.
- 2.9.2 Representations received during PAC, the revised Scoping Direction, completed survey work and any further design refinement will be reviewed as the EIA progresses. Where relevant, the assessments, mitigation measures and conclusions will be updated before submission of the DNS application.
- 2.9.3 The submitted ES will clearly identify the final development parameters, completed assessments, significant residual effects and measures relied upon to avoid, prevent, reduce, offset or monitor environmental effects.



Appendix 2.1 – Craig y Perthi Resubmission Scoping Report



Appendix 2.2 – PEDW Scoping Direction



Appendix 2.3 – Scoping Direction Response Schedule

