

APPENDIX 15.1 – CLIMATE CHANGE GUIDANCE AND LEGISLATION

LEGISLATION

Climate Change Act 2008 (2050 Target Amendment, Order 2019)

- 1.1.1 The Climate Change Act 2008 establishes the framework for the United Kingdom (UK) to set and deliver GHG emission reduction targets; mainly through the establishment of the Committee on Climate Change (CCC) which ensures targets are evidence based and progress is independently assessed. An amendment to The Act in 2019 commits the UK government to reduce GHG emissions to a minimum of 100% below 1990 baseline levels by 2050 – Net Zero.
- 1.1.2 The Act requires the Government to regularly report on emission target progress, assess the risks and opportunities to the UK associated with climate change, and develop preparation and adaptive plans for these. The UK Climate Change Risk Assessment is produced every five years. The third UK Climate Change Risk Assessment (CCRA3) was published in January 2022 and this series of reports, alongside other documents, are used in this chapter to assess potential vulnerabilities and adaptive potential of the proposed development regarding climate change impacts. The risks identified by the CCC in the Independent Assessment of UK Climate Risk published in June 2021 have also been considered in this assessment.

The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017

- 1.1.3 On 16th May 2017, The Infrastructure Planning (Environmental Impact Assessment) Regulations 2017 came into force in the UK. This legislation requires the consideration of climate change within an EIA. The key text concerning climate change is as follows:
- 1.1.4 *The EIA must identify, describe and assess in an appropriate manner, in light of each individual case, the direct and indirect significant effects of the proposed development on the following factors—*
- (a) population and human health;*
 - (b) biodiversity, with particular attention to species and habitats protected under Directive 92/43/EEC(14) and Directive 2009/147/EC(15);*
 - (c) land, soil, water, air and climate;*
 - (d) material assets, cultural heritage and the landscape;*
 - (e) the interaction between the factors referred to in sub-paragraphs (a) to (d).*

1.1.5 Schedule 3: Regulation 9(1) states:

1.1.6 *The characteristics of development must be considered with particular regard to—*

- (a) the size and design of the whole development;*
- (b) cumulation with other existing development and/or approved development;*
- (c) the use of natural resources, in particular land, soil, water and biodiversity;*
- (d) the production of waste;*
- (e) pollution and nuisances;*
- (f) the risk of major accidents and/or disasters relevant to the development concerned, including those caused by climate change, in accordance with scientific knowledge;*
- (g) the risks to human health (for example due to water contamination or air pollution).*

1.1.7 Schedule 4: Regulation 14(2) states:

1.1.8 *A description of the factors specified in regulation 5(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.*

1.1.9 *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.

PLANNING POLICY AND GUIDANCE

National Policy

The National Development Framework – Future Wales – The National Plan 2040 (2021)

1.1.10 The Future Wales – The National Plan 2040 is the national development framework which sets out the direction for development in Wales to 2040.

1.1.11 Policy 17 relates to Renewable and Low Carbon Energy and Associated Infrastructure. It states that:

1.1.12 *“The Welsh Government strongly supports the principle of developing renewable and low carbon energy from all technologies and at all scales to meet our future energy needs.*

1.1.13 *In determining planning applications for renewable and low carbon energy development, decision-makers must give significant weight to the need to meet Wales’ international commitments and our target to generate 70% of consumed electricity by renewable means by 2030 in order to combat the climate emergency.*

1.1.14 *In Pre-Assessed Areas for Wind Energy the Welsh Government has already modelled the likely impact on the landscape and has found them to be capable of accommodating development in an acceptable way. There is a presumption in favour of large-scale wind energy development (including repowering) in these areas, subject to the criteria in policy 18.*

1.1.15 *Applications for large-scale wind and solar will not be permitted in National Parks and Areas of Outstanding Natural Beauty and all proposals should demonstrate that they will not have an unacceptable adverse impact on the environment.*

1.1.16 *Proposals should describe the net benefits the scheme will bring in terms of social, economic, environmental and cultural improvements to local communities.*

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

1.1.18 Policy 18 relates to Renewable and Low Carbon Energy Developments of National Significance. This policy states:

1.1.19 *“Proposals for renewable and low carbon energy projects (including repowering) qualifying as Developments of National Significance will be permitted subject to policy 17 and the following criteria:*

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

2. The proposal is designed to minimise its visual impact on nearby communities and individual dwellings, and the cumulative impact of the proposal, with other existing or proposed development, is acceptable;

3. There are no adverse impacts on international and national statutory designated sites for nature conservation (and the features for which they have been designated), protected habitats and species;

4. The proposal includes biodiversity enhancement measures to provide a net benefit for biodiversity;

5. There are no unacceptable adverse impacts on statutorily protected built heritage assets;

6. There are no unacceptable adverse impacts by way of shadow flicker, noise, reflected light, air quality or electromagnetic disturbance;

7. There are no unacceptable impacts on the operations of defence facilities and operations (including aviation and radar) or the Mid Wales Low Flying Tactical Training Area (TTA-7T);

8. There are no unacceptable adverse impacts on the transport network through the transportation of components or source fuels during its construction and/or ongoing operation;

9. The proposal includes consideration of the materials needed or generated by the development to ensure the sustainable use and management of resources;

10. There are acceptable provisions relating to the decommissioning of the development at the end of its lifetime, including the removal of infrastructure and effective restoration.”

Planning Policy Wales Edition 12 (2024)

1.1.20 Planning Policy Wales sets out the land use planning policies of the Welsh Government. Regarding renewable and low carbon energy it states:

1.1.21 *“Local authorities should facilitate all forms of renewable and low carbon energy development and should seek cross-department co-operation to achieve this. In doing so, planning authorities should seek to ensure their area’s full potential for renewable and low carbon energy generation is maximised and renewable energy targets are achieved. Planning authorities should seek to maximise the potential of renewable energy by linking the development plan with other local authority strategies, including Local Well-being plans and Economic/ Regeneration strategies.”*

1.1.22 In relation to Development Management and Renewable and Low Carbon Energy, 5.9.19 states:

1.1.23 *“In determining applications for the range of renewable and low carbon energy technologies, planning authorities should take into account:*

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

Net Zero Strategy: Build Back Greener (2021)

1.1.24 The Net Zero Strategy (NZS) sets out the UK Government’s long-term plan for a transition to Net Zero emissions by 2050 that will take place over the next three decades, with plans for reducing emissions from each sector of the UK economy. The NZS states that:

“By 2035 the UK will be powered entirely by clean electricity, subject to security of supply”.

1.1.25 Many of the policies in the strategy will be phased in over the next decade or longer. The NZS includes key policies in the following areas:

- Power;
- Fuel supply and Hydrogen;
- Industry;
- Heat and Buildings;
- Transport;
- Natural resources, waste, and fluorinated gases;
- Greenhouse gas removals; and
- Supporting the transition with cross-cutting action.

CCC: Delivering a reliable decarbonisation power system (2023)

1.1.26 This report describes what a reliable, resilient, decarbonised electricity supply system could look like in 2035, and the steps required to achieve it. The key messages are:

- *“A reliable, resilient, decarbonised electricity system can be delivered by 2035. This is needed to deliver emissions reductions in line with the path to Net Zero, while ensuring a reliable and resilient electricity supply and substantially reducing the UK’s dependence on imported fossil fuels.*
- *The Government must give equal focus to low-carbon flexible solutions as to the full delivery of its existing renewables and nuclear commitments.*
- *Decarbonising and expanding the electricity system will rapidly reduce the UK’s dependence on imported oil and gas, reducing in turn our exposure to volatile international prices.*
- *Transforming the electricity system provides opportunities for growth. Currently, over 31,000 people across the UK are employed in offshore wind alone – this is set to rise to 97,000 by 2030, driven by £155 billion in private investment, with further investment and employment in solar and onshore wind.”*

Powering Up Britain: Net Zero Growth Plan (2023)

1.1.27 This policy paper outlines the connection between energy security and net zero. It outlines the UK Government’s progress and delivery of deploying renewable energy.

Caerphilly County Borough Council Local Development Plan (2010)

1.1.28 The Local Development Plan (LDP) is a development framework that the planning authority is statutorily required to produce. One of the aims of the LDP is to *“to ensure that new development minimises emissions of greenhouse gases as far as is practically possible in order to mitigate the effects of climate change.”*

1.1.29 One of the key objectives of the LDP is to *“Improve energy, waste and water efficiency while promoting environmentally acceptable renewable energy to maintain a cleaner environment and help reduce our impact on climate change.*

1.1.30 The Development Strategy state *“energy conservation makes a positive contribution to the protection of the environment through a reduction in the release of harmful emissions into the atmosphere. In addition, renewable energy technologies such as microgeneration have an important role to play in the built environment. However, there are a number of renewable energy sources that have the potential to have an adverse impact on valued aspects of the countryside, for example the potential impact of wind generated energy on the landscape. The energy provision benefits of renewable energy schemes therefore need to be balanced against the potential impact of such development on the landscape and on sites of ecological interest.”*

1.1.31 The Upper Rhymney Velly is mentioned within Section C: Area Specific Policies. It states *“The Upper Rhymney Valley offers the most significant potential in terms of energy production within the county borough due to the presence of coal resources at Nant Llesg and the potential of the Upper Rhymney Valley area in terms of renewable energy generation. However, the area is also a principal gateway to the northern end of the County Borough and is particularly prominent when viewed from the A465 Heads of the Valleys Road. The Plan seeks to balance the merits of renewable energy schemes and the safeguarding and potential development of minerals in this area against the objective of safeguarding the landscape from further degradation and, where possible, securing landscape enhancement.*

1.1.32 *Due to its prominence, any proposals for development associated with energy generation within the Upper Rhymney Valley will need to recognise that development must be undertaken in an environmentally acceptable manner. Development proposals should, where appropriate, secure effective landscape rehabilitation and enhancement as an integral part of the scheme. Proposals will also need to be consistent with the wider regeneration strategy and enhanced recreational and tourism role envisaged for this part of the Plan area.”*

Guidance

1.1.33 The climate change impact assessment will primarily be based on the latest EIA guidance published by the Institute of Environmental Management and Assessment (IEMA).

1.1.34 Part A of the assessment will primarily follow the ‘*Environmental Impact Assessment: Guide to Assessing Greenhouse Gas Emissions and Evaluating their Significance*’ (2022). This is the most recent guidance available and is applicable to the UK. It is also considered to be the most holistic method of assessing GHG emissions as it applies a

whole lifecycle methodology, incorporating not just the construction and operational phase of development, but also the decommissioning/end of life and beyond asset lifecycle stages. The whole lifecycle methodology allows for a more robust 'worst case scenario' to be applied which is proportionate to the nature and scale of the proposed development.

- 1.1.35 Several guidance publications have been produced containing suggested methods for establishing a GHG emissions baseline and limited advice on techniques for applying significance thresholds. The European Investment Bank (EIB) '*EIB Project Carbon Footprint Methodologies. Methodologies for the Assessment of Project GHG Emissions and Emission Variations*' (2023) guidance will be used when considering baseline scenarios. This goes into greater detail in terms of a baseline methodology and allows for easier comparison of impacts where there is no prior development in an area.
- 1.1.36 Guidance on the whole life cycle emissions of the Business as Usual (BaU) alternative baseline, in this case natural gas, is described through the United Nations Economic Commission Europe's (UNECE) assessment: *Carbon Neutrality in the UNECE Region: Integrated Life-cycle Assessment of Electricity Sources* (2022).
- 1.1.37 Part B of the climate change assessment will apply the IEMA '*Environmental Impact Assessment Guide to: Climate Change Resilience and Adaptation*' (2020) guidance as this is the most recent available and is applicable to the UK.
- 1.1.38 In addition, the following guidance documents have also been used to inform both parts of the climate change impact assessment:
- European Commission, 'Guidance on Integrating Climate Change and Biodiversity into Environmental Impact Assessment' (2013);
 - Royal Institution of Chartered Surveyors (RICS), 'Whole life carbon assessment for the built environment' (1st Edition 2017, Draft 2nd Edition 2023); and BSI - PAS 2080:2023 'Carbon Management in Buildings and Infrastructure'.