

6.2 SUSTAINABLE LIVING

SUSTAINABLE DEVELOPMENT AND CLIMATE CHANGE

6.2.1 Context

- The Welsh Government is committed to promoting sustainable development in Wales, and the planning system has a substantial part to play;
- Legislation requires that local development plans contribute to the work of achieving sustainable development;
- The purpose of the Single Integrated Plan is to promote economic, social and environmental wellbeing in Gwynedd and Anglesey;
- Sustainable communities need to be supported by ensuring the availability of varied employment opportunities and a sufficient number of a variety of homes that meet the needs of the local population throughout their lifetime, with sufficient choice of leisure and entertainment opportunities, and where there is only a low level of crime and people feel safe;
- The need to travel and to travel in vehicles using non-sustainable fuel should be reduced.
- Tackling climate change is one of the Government's key objectives and Planning Policy Wales expects Local Planning Authorities to ensure an appropriate location and pattern to development, promote reduction of car use, protect and improve biodiversity and ensure that all new development is resilient to the effects of climate change in order to alleviate and adapt to the effects of climate change;
- Gwynedd Council and the Isle of Anglesey County Council, through their Strategic Plans, are committed to working in ways that counteract climate change;
- Climate change considerations should be incorporated into the development of the area's spatial policies;
- The Plan should ensure that the natural and built environment is resilient to climate change and able to adapt to it;
- It is important to ensure that the location, scale and type of development allowed follows sustainable development principles and achieves environmental, economic and social gains for current and future generations of the Plan area

STRATEGIC POLICY PS 5: SUSTAINABLE DEVELOPMENT

Development will be supported where it is demonstrated that they are consistent with the principles of sustainable development. All proposals should:

- 1. Alleviate the causes of climate change and adapting to those impacts that are unavoidable in accordance with Strategic Policy PS 6;**
- 2. Give priority to effective use of land and infrastructure, prioritizing wherever possible the reuse of previously developed land and buildings within the development boundaries of**

- Sub Regional Centre, Urban and Local Service Centres, Villages or in the most appropriate places outside them in accordance with Strategic Policy PS 17, PS 13 and PS 14;
3. Promote greater self-containment of Centres and Villages by contributing to balanced communities that are supported by sufficient services; cultural, arts, sporting and entertainment activities; a varied range of employment opportunities; physical and social infrastructure; and a choice of modes of travel;
 4. Protect, support and promote the use of the Welsh language in accordance with Strategic Policy PS 1;
 5. Preserve and enhance the quality of the built and historic environment assets (including their setting), improving the understanding, appreciation of their social and economic contribution and sustainable use of them in accordance with Strategic Policy PS 20;
 6. Protect and improve the quality of the natural environment, its landscapes and biodiversity assets, including understanding and appreciating them for the social and economic contribution they make in accordance with Strategic Policy PS 19;
 7. Reduce the effect on local resources, avoiding pollution and incorporating sustainable building principles in order to contribute to energy conservation and efficiency; using renewable energy; reducing / recycling waste; using materials from sustainable sources; and protecting soil quality;
 8. Reduce the amount of water used and wasted; reducing the effect on water resources and quality; managing flood risk and maximizing use of sustainable drainage schemes; and progressing the objectives of the Western Wales River Basin Water Management Plan.

Proposals should also where appropriate:

9. Meet the needs of the local population throughout their lifetime in terms of their quality, types of tenure and affordability of housing units in accordance with Strategic Policy PS 16;
10. Promote a varied and responsive local economy that encourages investment and that will support Centres, Villages and rural areas in accordance with Strategic Policy PS 13;
11. Support the local economy and businesses by providing opportunities for lifelong learning and skills development in accordance with Strategic Policy PS 13;
12. Reduce the need to travel by private transport and encourage the opportunities for all users to travel when required as often as possible by means of alternative modes, placing particular emphasis on walking, cycling and using public transport in accordance with Strategic Policy PS 4;
13. Promote high standards of design that make a positive contribution to the local area, accessible places, that can respond to future requirements and that reduce crime, antisocial behaviour and the fear of crime in accordance with Policy PCYFF 3.

STRATEGIC POLICY PS 6: ALLEVIATING AND ADAPTING TO THE EFFECTS OF CLIMATE CHANGE

In order to alleviate the effects of climate change, proposals will only be permitted where it is demonstrated that they have fully taken account of and responded to the following:

1. The energy hierarchy:
 - i. Reducing energy demand;

- ii. Energy efficiency;
 - iii. Using low or zero carbon energy technologies wherever practical, viable and consistent with the need to engage and involve communities; protect visual amenities, the natural, built and historic environment and the landscape.
2. Reducing greenhouse gas emissions, help to reduce waste and encourage travel other than by car.

In order to adapt to the effects of climate change, proposals will only be permitted where it is demonstrated with appropriate evidence that they have fully taken account of and responded to the following:

3. Implementing sustainable water management measures in line with the objectives in the Western Wales River Basin Management Plan;
4. Locating away from flood risk areas, and aim to reduce the overall risk of flooding within the Plan area and areas outside it, taking account of a 100 years and 75 years of flood risk in terms of the lifetime of residential and non-residential development, respectively, unless it can be clearly demonstrated that there is no risk or that the risk can be managed;
5. Be able to withstand the effects of climate change as much as possible because of its high standards of sustainable design, location, layout and sustainable building methods (in line with Policy PCYFF 3);
6. Safeguarding the best and most versatile agricultural land, promoting allotments, support opportunities for local food production and farming in order to reduce the area's contribution to food miles;
7. Ensuring that the ability of landscapes, environments and species to adapt to the harmful effects of climate change is not affected, and that compensatory environments are provided if necessary;
8. Aim for the highest possible standard in terms of water efficiency and implement other measures to withstand drought, maintain the flow of water and maintain or improve the quality of water, including using sustainable drainage systems (in line with Policy PCYFF 6).

POLICY PCYFF 1: DEVELOPMENT BOUNDARIES

The Plan identifies Development Boundaries for the Sub-regional Centre, Urban Service Centres, Local Service Centres, Service Villages and Local / Rural / Coastal Villages. Proposals within Development Boundaries will be approved in accordance with the other policies and proposals of this Plan, national planning policies and other material planning considerations.

Outside the development boundaries development will be resisted unless it is in accordance with specific policies in this Plan or national planning policies or that the proposal demonstrates that its location in the countryside is essential.

Explanation:

- 6.2.2 Development boundaries were identified for all types of settlements in the Plan apart from Clusters. A number of policies in the Plan direct new development to sites or buildings within development boundaries. The development boundaries:

- i. prohibit inappropriate development from being located in the countryside;
 - ii. provide definite guidance and clarity in relation to where exceptions can be applied, e.g. rural exception policy directly on the edge of the development boundary;
 - iii. avoid the coalescence of settlements and a fragmented development pattern;
 - iv. identify areas where developments could be approved; and
 - v. promote the efficient and appropriate use of land and buildings.
- 6.2.3 The remainder of the Plan area which is outside the Development Boundaries includes Clusters, fragmented developments and open countryside. Developments in the remainder of the Plan area are subject to more control and are mainly restricted to developments which require a location in the countryside or that meet a local rural need, support rural diversification or sustainability of the countryside.
- 6.2.4 Within the context of rural protection however, this policy acknowledges that some types of developments are necessary if the plan is to address the area's social, economic or environmental needs. If a development is acceptable in principle, this Policy and other detailed policies in the Plan or national planning policies will ensure that the development will not threaten or harm the attributes of the countryside within the Plan area.

POLICY PCYFF 2: DEVELOPMENT CRITERIA

A proposal should demonstrate its compliance with:

- 1. Relevant policies in the Plan;**
- 2. National planning policy and guidance.**

Proposals should:

- 3. Make the most efficient use of land, including achieving densities of a minimum of 30 housing units per hectare for residential development (unless there are local circumstances or site constraints that dictate a lower density);**
- 4. Provide appropriate amenity space to serve existing and future occupants;**
- 5. Include provision for storing, recycling and waste management during the construction period and occupancy period;**
- 6. Include, where applicable, provision for the appropriate management and eradication of invasive species;**

Additionally, planning permission will be refused where the proposed development would have an unacceptable adverse impact on:

- 7. The health, safety or amenity of occupiers of local residences, other land and property uses or characteristics of the locality due to increased activity, disturbance, vibration, noise, dust, fumes, litter, drainage, light pollution, or other forms of pollution or nuisance;**
- 8. Land allocated for other development/ uses.**

Explanation:

- 6.2.5 Policy PCYFF 2 sets out the priority criteria, not covered elsewhere in the Plan which new development will need to meet, in principle, in achieving sustainable and appropriately located development.
- 6.2.6 The Welsh Government's national land use planning policies are set out in Planning Policy Wales and Minerals Planning Policy Wales supplemented by Technical Advice Notes, Circulars and Practice Guidance Notes. Authorities in Wales must have regard to national policy, including the Wales Spatial Plan, in the preparation of LDPs.
- 6.2.7 A thorough scoping exercise has been undertaken of all national guidance as set out in Topic Paper 2: Policy context.
- 6.2.8 Policy PCYFF 2 subjects all planning applications to up-to-date national planning policy and guidance and will avoid unnecessary repetition throughout the Plan, as required by Welsh Government.

POLICY PCYFF 3: DESIGN AND PLACE SHAPING

All proposals will be expected to demonstrate high quality design which fully takes into account the natural, historic and built environmental context and contributes to the creation of attractive, sustainable places. Innovative and energy efficient design will be particularly encouraged.

Proposal, including extensions and alterations to existing buildings and structures will only be permitted provided they conform to all of the following criteria, where relevant:

- 1. It complements and enhances the character and appearance of the site, building or area in terms of siting, appearance, scale, height, massing and elevation treatment;**
- 2. It respects the context of the site and its place within the local landscape, including its impact on important principal gateways into Gwynedd or into Anglesey, its effects on townscape and the local historic and cultural heritage and it takes account of the site topography and prominent skylines or ridges;**
- 3. It utilises materials appropriate to its surroundings and incorporates hard and soft landscaping and screening where appropriate, in line with Policy PCYFF 4;**
- 4. It achieves and creates attractive, safe places and public spaces, taking account of 'Secured by Design' principles (including where appropriate natural surveillance, visibility, well lit environments and areas of public movement);**
- 5. It plays a full role in achieving and enhancing a safe and integrated transport and communications network promoting the interests of pedestrians, cyclists and public transport and ensures linkages with the existing surrounding community;**
- 6. Its drainage systems are designed to limit surface water run-off and flood risk and prevent pollution;**
- 7. The layout and design of the development achieves inclusive design by ensuring barrier free environments, allowing access by all and making full provision for people with disabilities;**

8. **Where practical, include infrastructure for modern telecommunications and information;**
9. **Encourage active frontages at ground level where development is non-residential;**
10. **It helps create healthy and active environments, and considers the health and well-being of future users.**

Explanation:

- 6.2.9 Policies addressing the design of new development will play an important role in maintaining the Plan area's high quality environment. Development needs to be carefully planned to ensure that valuable features and characteristics are protected and enhanced. Good design helps to provide a sense of place, creates or reinforces local distinctiveness, promotes community cohesiveness and social well being. The layout and design of new developments must be based on a thorough understanding of the site itself and its wider context, and seek to maximise the benefits of the sites characteristics. This will require careful consideration of the site layout. No two sites share the same landscapes, contours, relationship with surrounding buildings, street pattern, and features. The proximity of poor quality or indistinct development is not a justification for standard or poor design solutions. New development should integrate into its surroundings whilst seeking to enhance the overall character of the locality.
- 6.2.10 High quality design will be required for all new developments from building extensions through to major developments. This policy sets out a range of issues which all developers will need to take into account when designing each individual scheme. Proposals will need to be accompanied by appropriate information including a design and access statement when this is required to demonstrate compliance with Policy PCYFF 4. In demonstrating that proposals will be sympathetic to and conserve historic buildings and historic landscapes applicants should have consideration of the requirements of Policy PS 16 and Policy PCYFF 2. This policy is supported by Supplementary Planning Guidance/ Design Guides, which sets out detailed design requirements and should be referred to accordingly.

POLICY PCYFF 4: DESIGN AND LANDSCAPING

All proposals should integrate into their surroundings. Proposals that fail to show (in a manner appropriate to the nature, scale and location of the proposed development) how landscaping has been considered from the outset as part of the design proposal will be refused. A landscape scheme should, where relevant:

1. **Demonstrate how the proposed development has given due consideration to the Landscape Character Area Assessment or Seascape Character Area Assessment;**
2. **Demonstrate how the proposed development respects the natural contours of the landscape;**
3. **Demonstrate how the proposed development respects and protects local and strategic views;**
4. **Respect, retain and complement any existing positive natural features, landscapes, or other features on site;**
5. **Identify trees, hedgerows, water courses and topographical features to be retained;**

6. Provide justification for circumstances where the removal/loss of existing trees, hedgerows, water courses and topographical features cannot be avoided and provides details of replacements;
7. Provide details of any proposed new landscaping together with a phased programme of planting;
8. Demonstrate that any proposed new planting includes plants and trees of mainly native species of local provenance and does not include any non-native invasive species;
9. Ensure that selection of species and planting position of any trees allows for them to grow to their mature height without detriment to nearby buildings, services and other planting; and
10. Provide permeable hard surface landscaping.

Explanation:

- 6.2.11 A good landscape scheme should be an asset to the development, the local community and to the wider landscape. A landscape scheme can contribute to wide range of development situations, but will be of particular relevance to proposals involving major new development, development that is likely to have a significant visual effect or development affecting a sensitive site, locality or building.
- 6.2.12 It is important to establish the requirements for the landscape scheme early in the design process so that it may contribute to the layout of the development and ensure that sufficient space is available for appropriate planting and other landscape features. The level of detail should be consistent with the nature, scale and location of the proposed development.
- 6.2.13 A well-designed and executed landscape scheme can become an on-going asset to the community, contributing in a wide variety of ways. The overall aim is to achieve an environment that maximises the quality of life for people who live and work in the Plan area. This policy is supported by Supplementary Planning Guidance/ Design Guides, which sets out detailed design requirements and should be referred to accordingly.

POLICY PCYFF 5: CARBON MANAGEMENT

Proposals will need to demonstrate how the energy hierarchy set out in Policy PS 6 has been applied and how the contribution from renewable or low carbon energy to satisfy the proposals need for energy and waste has been maximised.

Where appropriate, the co-location of development in order to optimise opportunities to connect to renewable or low carbon energy technology will be supported.

Residential development on sites for 100 housing units or more, and non-residential development of 1,000 sq. metres or more, will be required to submit a comprehensive Energy Assessment to determine the feasibility, including viability issues, of incorporating renewable or low carbon technology and/ or, where appropriate, connect to renewable or low carbon technology. The Assessment will be expected to address the following matters:

1. **Energy efficient design – development should maximise energy efficiency through design, layout, orientation, and use of other techniques to incorporate energy efficiency methods; and**
2. **Renewable energy feasibility – full assessment of the feasibility of all on site renewable energy technologies. The response should provide details of:**
 - i. **The energy generated and the CO² savings;**
 - ii. **The proposed technology’s capacity and size;**
 - iii. **Location of the technology plotted on site plans.**

Explanation:

6.2.14 It is important that new development addresses climate change challenges. Part of the response set out in applications for new buildings should include carbon management measures, including energy efficiency measures and renewable energy. Existing buildings also have a role and incorporation of appropriate carbon measures in existing buildings is also encouraged.

6.2.15 The “Renewable Energy Opportunities Study – towards renewable energy target” (2016) has evaluated the potential energy capacity of renewable and low carbon energy Technologies in the Plan area and the rest of Gwynedd. Developers are encouraged to explore all aspects of the Plan area’s capacity to contribute to reducing national carbon emissions within the energy sector. Planning permission is not required for some micro-generation Technologies under the General Permitted Development Order. It is suggested that applicants should look at part 40 and part 43 of the Order and take advantage of pre-application enquiry service, which is available from both Councils.

POLICY PCYFF 6: WATER CONSERVATION

Proposals should incorporate water conservation measures where practicable, including Sustainable Urban Drainage Systems (SUDS). All proposals should implement flood minimisation or mitigation measures where possible, to reduce surface water run-off and minimise its contribution to flood risk elsewhere.

Proposals greater than 1,000 m² or 10 dwellings should be accompanied by a Water Conservation Statement.

Explanation:

6.2.16 The aim of this policy is to protect and improve water resources through increased efficiency and demand management of water, particularly in those areas where additional water resources may not be available. There are a number of ways water conservation can be achieved, including water saving devices, rainwater harvesting, and grey water recycling.

6.2.17 The use of SUDS to manage waterflows are an important means of minimising flood risk by increasing permeable surfaces in an area which allows water to seep into the ground, thus reducing the risk of flooding. SUDS typically include swales, ponds, infiltration basins and porous surfaces and should be considered in place of conventional drainage methods where practicable. It is

important that SUDS are incorporated into the design of a proposal at an early stage so that a range of techniques can be considered in order to maximise efficiency.

RENEWABLE ENERGY TECHNOLOGY

6.2.18 Context

- The UK Government has set a target to supply 15% of the UK's energy from renewable energy by 2020. Planning policy at all levels should facilitate delivery of both the Welsh Government's overall Energy Policy Statement, and UK and European targets on renewable energy.
- Energy Wales: A Low Carbon Transition (2012) identifies the sustainable renewable energy potential for a variety of different technologies as well as establishing a commitment to energy efficiency.
- One way local planning authorities can help to achieve this is by including positive planning policies for renewable energy.
- There are no Strategic Search Areas for commercial wind farms within the Plan area.
- Outside Strategic Search Areas smaller community based wind farm schemes (generally less than 5MW) are encouraged.
- Both Councils through the Anglesey Energy Island Programme and the Green Gwynedd Project support community, rural and larger scale ventures, where appropriate.

Introduction

6.2.19 In 2012 Renewable Energy Capacity Studies were prepared for Gwynedd (county) and Anglesey to assess the potential capacity for renewable sources of energy. The purpose of the Studies was to help each Council understand the potential resources from each renewable energy technology. The Studies considered a number of on-shore technologies, e.g. onshore wind, hydropower, biomass. Off-shore resources were acknowledged in the Studies but they did not contribute to the renewable energy capacity figures of the Plan area. The Studies were updated during 2016 Potential Renewable Energy Study – towards renewable energy targets. The Studies estimate that approximately 37.8% of the total electricity demand is currently provided by renewable electricity. However, although heat demand is significant, there is no evidence of any renewable heat supply in the area to date.

6.2.20 A combination of Renewable Energy Capacity Study (2016) Renewable Energy Study (2016) and the Landscape Sensitivity and Capacity Study Landscapes (2014) have shown, at a high level, places within the Plan area where there are areas of opportunities for Solar PV Farms. These areas will assist developers when searching for sites. In relation to wind farms, due to capacity issues and the sensitivity of the landscape, it was concluded that it is not possible to identify any opportunity areas. The Renewable Energy Opportunities Study also noted Gwynedd (the county) and Anglesey's potential contributions towards meeting national targets through onshore wind (further opportunities through micro generation), hydropower, solar, energy from waste, biomass and tidal. This table provides details of the potential opportunities:

Table 7: Renewable Electricity Potential for 2026

Energy Technology	Existing Installed Capacity (MWe)	Potential Capacity (MWe)	Existing Energy Generated (GWh)	Additional Potential for Energy Generated (GWh)	Percentage Delivered by 2026	Total Additional Potential for Renewable Energy Delivered by 2026 (GWh)
Wind Onshore	45.7	119.5	108	104.6	0.5%	0.5
Hydropower	60.3	3.9	195.5	3.9	100%	3.9
Solar	53.6	331.1	46.9	289.2	7%	20.3
Anaerobic Digestion	0	11	0	80.6	24.8%	20
Energy from Waste (MSW) & (C&IW)	0	4.6	0	36.4	0%	0
Biomass	0	328	0	2,586	74%	1,913
Tidal	0	220	0	481.8	60%	289
TOTAL	159.6	1,018.1	350.4	3,582.5	62.7%	2,246.7
Projected Electricity Demand (2026)						923.6
Renewable Energy contribution % of electricity demand						243%

Table 8: Renewable Heat Potential for 2026

Energy Technology	Existing Installed Capacity (MWt)	Potential Capacity (MWt)	Existing Energy Generated (GWh)	Additional Potential for Energy Generated (GWh)	Percentage Delivered by 2026	Total Additional Potential for Renewable Energy Delivered by 2026 (GWh)
Micro generation	Information not readily available at individual Technology Level	469	Information not readily available at individual Technology Level	796.2	1.08%	8.62
Anaerobic Digestion		6.9		27.4	28%	7.675
Energy from Waste (MSW) & (C&IW)		9.3		40.7	0%	0
Biomass		60.5		264.7	13.8%	36.5
Total	12.4	545.7	Unknown	1,129	4.67%	52.795

Energy Technology	Existing Installed Capacity (MWt)	Potential Capacity (MWt)	Existing Energy Generated (GWh)	Additional Potential for Energy Generated (GWh)	Percentage Delivered by 2026	Total Additional Potential for Renewable Energy Delivered by 2026 (GWh)
Projected Gas Demand (2026)						647.2
Renewable Energy contribution % of heat demand (currently supplied by Gas)						8.2%

6.2.21 The above tables contain both demand and opportunity figures for the whole of the County of Gwynedd. To provide a Plan area figure, the type and location of the Technologies have been considered. The figures in the tables have been adjusted to reflect the fact that a large biomass scheme (i.e. the Orthios scheme) is located in Holyhead Anglesey, and there are limited Tidal opportunities along the coastline of the Snowdonia National Park. On this basis, the identified level of opportunities from these technologies is recorded for the Plan area. In relation to the other technologies, it is considered reasonable to take account of the fact that a proportion of the Plan area's population (10.4%) reside within the National Park. This level of reduction is also applied to the projected demand figures. On this basis the Plan therefore aims to facilitate renewable energy development to address 2,226.7(GWh) of electricity potential being 271% of the electricity needs and 47.3(GWh) of heat potential being 8.1% of the heating needs of the Plan area by 2026.

6.2.22 All the resources and opportunities were considered together in order to gain an understanding of the renewable energy potential in the two counties. All in all, Policy PS 7, Policy ADN 1, Policy ADN 2, Policy ADN 3 as well Policy PCYFF 5 provide a framework to promote the use of renewable energy or low carbon technology as part of individual developments or through provision of stand-alone equipment. Monitoring these policies will show how the Plan will contribute to meet national requirements. It will be necessary to keep in mind that how much can be achieved ultimately depends on external factors, e.g. national policy, household behaviour change.

STRATEGIC POLICY PS 7: RENEWABLE ENERGY TECHNOLOGY

The Councils will seek to ensure that the Plan area wherever feasible and viable realises its potential as a leading area for initiatives based on renewable or low carbon energy technologies by promoting:

- 1. Renewable energy technologies within development proposals which support energy generation from a variety of sources which include biomass, marine, waste, water, ground, solar and wind, including micro generation;**
- 2. Free-standing renewable energy technology development**

This will be achieved by:

- 3. Ensuring that installations in areas covered by international or national landscape designations and visible beyond their boundaries, or areas of local landscape value, in**

accordance with Strategic Policy PS 19 do not individually or cumulatively compromise the objectives of the designations especially with regard to landscape character, and visual impact;

4. Ensuring that installations in accordance with PS 19 do not individually or cumulatively compromise the objectives of international, national and local nature conservation designations;
5. Supporting installations outside designated areas provided that the installation would not cause significant demonstrable harm to landscape character, biodiversity, or amenity of residential or holiday accommodation, either individually or cumulatively.

To lessen the visual impact of new overhead lines associated with such installations, especially in sensitive locations, the lines should be placed underground unless this causes significant harm to other acknowledged interests or the viability of the scheme, which cannot be negated or mitigated.

POLICY ADN 1: ON-SHORE WIND ENERGY

No Large-Scale or Very Large-Scale wind farms / wind turbines will be permitted in the Plan area.

Other on shore wind turbine proposals will be permitted subject to an assessment of their environmental and sustainability impacts:

1. Medium-Scale wind farms / wind turbines will only be granted on urban / industrial brownfield sites or when the proposal involves the repowering of existing wind farms / wind turbines.
2. Micro-Scale and Small-Scale wind turbine proposals will be granted outside the AONB and the SLA provided they don't have a significant detrimental effect on the setting of the AONB, National Park and World Heritage Site.
3. In the AONB and the SLA and sites that affect the setting of the AONB, National Park and World Heritage Site, only Domestic-Scale wind turbine proposals well related to existing settlements / buildings will be granted.

All proposals should conform to the following criteria:

- i. all impacts on landscape character, heritage assets and natural resources have been adequately mitigated, ensuring that the special qualities of all locally, nationally and internationally important landscape, biodiversity and heritage designations, including, where appropriate, their settings are conserved or enhanced;
- ii. the proposal will not result in significant harm to the safety or amenity of sensitive receptors including effect from noise, shadow flicker and impact on public health, and will not have an unacceptable impact on roads, rail or aviation safety;
- iii. the proposal will not result in significant harm to the residential visual amenities of nearby residents;

- iv. the proposal will not result in unacceptable electromagnetic interference to communications installations, radar or air traffic control systems, emergency services communications or other telecommunication systems;
- v. the proposal will not have unacceptable cumulative impacts in relation to existing wind turbines, and those which have permission, and other prominent landscape features;
- vi. turbines and associated infrastructure will, at the end of the operational life of the facility, be removed in accordance with a restoration and aftercare scheme submitted to and agreed by the Local Planning Authority.

Where required, the proposal should be informed by a Landscape and Visual Impact Assessment

A proposal will be considered as falling within the typology that represents the biggest type (height and scale) for which it qualifies.

Explanation:

- 6.2.23 The greatest potential in terms of generating energy from large scale on-shore wind turbines are the Strategic Search Areas identified in TAN 8. No Strategic Search Area exists within the Môn and Gwynedd Plan area.
- 6.2.24 The number of environmental designations throughout the Plan area together with the dispersed nature of the local population means careful consideration needs to be given towards the potential unacceptable impact of on-shore wind energy proposals.
- 6.2.25 The key objective is to ensure that development is proportionate and appropriately located in the landscape. The Isle of Anglesey, Gwynedd and Snowdonia National Park Landscape Sensitivity and Capacity Study was commissioned to guide development such as on-shore wind energy to appropriate locations by identifying and protecting sensitive and distinct areas from inappropriate development.
- 6.2.26 The indicative landscape capacity within the Sensitivity and Capacity Study, helps to identify the type of developments which could be potentially accommodated, however, this does not in itself suggest that planning applications for development in these areas will be appropriate. Other variables such as environmental designations and technical constraints, site specific siting, layout and design will need to be considered on a case by case basis.
- 6.2.27 The Sensitivity and Capacity Study produces specific guidance notes for each type of development to help direct any proposed development to the most appropriate location in landscape and visual terms within each Landscape Character Area (LCA).
- 6.2.28 The following table identifies the wind turbine typology used to categorise the size (height and scale) of the development in terms of its potential to be acceptable within the landscape. For information purposes, details of the indicative output for each category is provided.

Table 9: Wind turbine typology used in Policy ADN 1

Wind Energy Typology	Indicative Output (broad output category)	Supplementary Criteria (to be read in conjunction with Policy ADN 1) (meets one or more of the criteria) (determines whether this typology applies or whether a larger one does)
DOMESTIC	Under 10kW	<ul style="list-style-type: none"> • Single turbine applications • Turbine up to 15m to blade tip • Turbine may be roof-mounted or pole-mounted
MICRO	under 50kW	<ul style="list-style-type: none"> • Single or twin turbine applications • Turbine up to 20m to blade tip
SMALL	under 5MW	<ul style="list-style-type: none"> • Turbines up to 3 in number • Turbines up to 50m to blade tip • Viewed as a small group
MEDIUM	over 5MW and up to 25MW	<ul style="list-style-type: none"> • Turbines up to 9 in number • Turbines up to 80 metres to blade tip • Viewed as a large group
LARGE	over 25MW	<ul style="list-style-type: none"> • Turbines over and including 10 in number • Turbines up to 110 metres to blade tip • Viewed as a large scale wind farm
VERY LARGE	Over 25MW	<ul style="list-style-type: none"> • Turbines over 110 metres to blade tip • Viewed as a very large scale wind farm

6.2.29 An important consideration is the potential cumulative effect of wind farms / turbines, both implemented and those permitted, together with prominent landscape features. This could involve cumulative impact in relation to noise, visual, design, ecology, social, ground and surface water.

6.2.30 Guidance on the Application of Separation Distances from Residential Properties Study was commissioned by the Isle of Anglesey, Gwynedd and Snowdonia National Park to consider development such as on-shore wind energy by evaluating the suitability of introducing minimum separation distances.

6.2.31 The report concluded that minimum separation distances were not appropriate; however indicative residential visual amenity assessment trigger distances were appropriate. This means that for development within these distances to a residential property (other than the applicants/application sites own property) a residential visual amenity assessment should support the application.

Table 10: Residential visual amenity assessment trigger distance

Height of Proposed Wind Farm / Turbine (to blade tip)	Residential Visual Amenity Assessment Trigger Distance (Potential 'Very Large' Scale of Visual Impact)
Up to 25m	Within 200m
25.01 to 50m	Within 400m
50.01 to 75m	Within 600m
75.01 to 100m	Within 800m
Over 100.01m to 150m	Within 1.22km

- 6.2.32 Experience has shown that there are potential opportunities to achieve community benefit through wind turbine development. Some benefits can be justified as being mitigation measures through the planning process, e.g. improvements to the highway infrastructure and the creation or management of wildlife habitats. Development can also lead to benefits that aren't directly related to the planning process, e.g. annual financial payment to the community or from the developer's commitment to use local labour wherever possible.
- 6.2.33 Consideration should be given to other policies within the Plan particularly those in relation to the natural and historic environment. Supplementary planning guidance provides guidance on the siting of stand alone renewable energy development.

POLICY ADN 2: PV SOLAR ENERGY

Proposals for Solar PV Farms of 5MW or more should be directed to the potential search areas shown on the Proposals Map. Proposals of this scale will only be permitted in other locations in exceptional circumstances when the need for a scheme can be justified and there are specific locational circumstances.

Proposals for Solar PV Farms of 5MW or more and other solar schemes of up to 5MW will be permitted provided that the proposal conforms to the following criteria:

1. All impacts on landscape character, heritage assets and natural resources have been adequately mitigated, ensuring that the special qualities of all locally, nationally and internationally important landscape, biodiversity and heritage designations, including, where appropriate, their settings are conserved or enhanced;
2. The proposal will not result in significant harm to the safety or amenity of sensitive receptors including effect from glint and glare and will not have an unacceptable impact on roads, rail or aviation safety;
3. The proposal will not result in significant harm to the residential visual amenities of nearby residents;
4. The proposal will not have unacceptable cumulative impacts in relation to existing solar PV farms and those which have permission and other prominent landscape features;

5. The panels and associated infrastructure will, at the end of the operational life of the facility, be removed in accordance with a restoration and aftercare scheme submitted to and agreed by the Local Planning Authority.
6. That a Construction Environmental Management Plan (CEMP) is provided to demonstrate that any potential negative effects arising during construction and decommissioning phases are avoided.

Explanation:

6.2.34 An assessment of the potential for solar PV farms in the Gwynedd Planning Authority area and Ynys Môn was commissioned to identify potential areas of search for solar farm development. It was based upon the methodology outlined within Planning for Renewable and Low Carbon Energy – A Toolkit for Planners (2015) by the Welsh Government.

6.2.35 Based upon a strategic level assessment it identified potential opportunity areas that could deliver schemes of 5MW or more. As search areas, the identified areas provide an indication of solar energy resources within the Plan area as opposed to specific safeguarded areas. The search areas have been identified by mapping solar energy resources (based on slope and orientation) and by removing significant constraints to solar energy development. The Study identified 11 possible areas. Due to landscape sensitivity and capacity issues some of these potential areas may only be able to achieve 5MW or more through 2 or more separate schemes subject to consideration of any potential cumulative impact. The following table identifies areas shown on the Proposals Maps.

Table 11 : Potential Opportunity Areas

Potential Opportunity Area Number	Location of Area (Nearest Settlement)	Total Site Area (Ha)
S1	Rhoslan	117.3
S2	Rhoslan	90.9
S3	Llangefni	14.4
S4	Pentraeth	13.2
S5	Pentraeth	27.0
S6	Gwalchmai	54.9
S7	Gwalchmai	44.1
S8	Llanddeusant	126.7
S9	Llanddeusant	19.3
S10	Caergeiliog	115.0
S11	Caergeiliog	12.3

6.2.36 Within the potential opportunity areas applicant will be required to undertake further refinement to identify specific opportunities for detailed development proposals and to consider their suitability and capacity for renewable energy production. Detailed proposals within the potential opportunity areas and on any other site in the Plan area will be required to demonstrate compliance with the criteria in this Policy and other relevant policies.

POLICY ADN 3: OTHER RENEWABLE ENERGY AND LOW CARBON TECHNOLOGIES

Proposals for renewable and low carbon energy technologies, other than wind or solar, which contribute a low carbon future will be permitted, provided that the proposal conforms to the following criteria:

1. All impacts on landscape character, heritage assets and natural resources have been adequately mitigated, ensuring that the special qualities of all locally, nationally and internationally important landscape, biodiversity and heritage designations, including, where appropriate, their settings are conserved or enhanced;
2. That the proposal does not have a significant unacceptable effect on visual amenities;
3. That the proposal is mitigated to ensure that there aren't any significant unacceptable effects on sensitive uses located nearby;
4. Where appropriate, that the proposal does not have a significant unacceptable effect on the quality and supply of water;
5. Where appropriate, existing buildings or previously developed land is used;
6. That the development does not have cumulative unacceptable effect with any prominent features in the landscape or townscape;
7. Where required, the equipment and associated infrastructure are removed from the site in accordance with a restoration and aftercare scheme submitted to and agreed by the Local Planning Authority.

Where necessary, proposals should be informed by the landscape and visual impact assessment.

Explanation:

- 6.2.37 This policy covers a range of renewable energy technologies including biomass, heat pumps, hydro power, Combined Heat and Power (CHP). This policy does not cover on-shore wind farms / turbines, which are covered by Policy ADN 1, or solar energy, which is covered in Policy ADN 2.
- 6.2.38 TAN 8 and Practice Guidance – Planning Implications of Renewable and Low Carbon Energy Development provide technical detail and definitions for understanding the characteristics of these technologies to aid assessment of proposals.
- 6.2.39 Whatever the scale, careful consideration will need to be given to the likely adverse effects that could arise from the proposal. In terms of mitigation, schemes need to be well planned, reflect local circumstances and show how any environmental, social plans, resources and economic impacts have been minimised by careful site selection, design, construction, operation and other measures. In this regard, in considering the impact on other features and designations, proposals need to have due regard to the requirements of other policies in the Plan, where applicable. Further guidance is provided regarding the identification and assessment of schemes in the Supplementary Planning Guidance on siting standalone renewable energy infrastructure.
- 6.2.40 The potential cumulative impact of renewable energy technologies should consider unacceptable harm in relation to landscape, visual impact, noise, ecology and ground and surface water.

COASTAL CHANGE MANAGEMENT

6.2.41 Local planning authorities should demonstrate that they have considered Shoreline Management Plans, which provide a large-scale assessment of the risks associated with coastal processes, and should provide the primary source of evidence in defining the coastal change management area and inform land allocation within it. The West of Wales Shoreline Management Plan (SMP) 2 sets a range of policies for the coastline, which are 'hold the line', 'no active intervention' or 'managed realignment', per policy epoch. The policy epochs are up to 2025, 2026 to 2055 and 2056 to 2105. A copy of the SMP 2 can be viewed at (http://www.westofwalessmp.org/content.asp?nav=23&parent_directory_id=10). Planning Policy Wales states that Local Authorities should help reduce the risk of flooding and the impact of coastal erosion by avoiding inappropriate development in vulnerable areas. A Coastal Change Management Area (CChMA) is defined where the accepted shoreline management plan policy is for 'no active intervention' or 'managed realignment' during the Plan period. Appendix 6 provides a schedule of coastal areas defined as the Coastal Change Management Area. The coastal areas included in the CChMA are those where the SMP 2 set a 'no active intervention' or 'managed realignment' policy approach either up to 2025 or between 2026 and 2055 policy epochs or both policy epochs.

POLICY ARNA 1: COASTAL CHANGE MANAGEMENT AREA

A Coastal Change Management Area (CChMA) is identified in Appendix 6.

New Residential Development

Proposals for new dwellings, replacement dwellings, subdivisions of existing buildings to residential use or conversion of existing buildings to residential use will be refused in the CChMA.

Relocation of Existing Permanent Dwellings in the Countryside

Proposals for the relocation of existing permanent dwellings in the countryside located in the CChMA predicted to be affected by coastal erosion and/or flood risk will be permitted provided they conform to the following criteria:

1. The development replaces a permanent dwelling which is affected or threatened by erosion and/or flood risk within 20 years of the date of the proposal; and
2. The relocated dwelling is located an appropriate distance inland with regard to CChMA and other information in the Shoreline Management Plan and where possible it is in a location that is:
 - i. in the case of an agricultural dwelling, within the farm holding or within or immediately adjacent to existing settlements, or
 - ii. within or immediately adjacent to existing settlements close to the location from which it was displaced;
3. The existing site is cleared and made safe; and

4. The proposal should result in no detrimental impact on the landscape, townscape or biodiversity of the area.

New or Existing Non-Residential Buildings

5. New non-residential permanent buildings not associated with an existing use or building will not be permitted in areas within the CChMA predicted as being at risk from coastal change during the first indicative policy epoch up to 2025.
6. Proposals for the following types of new non-residential development will be permitted on sites within the CChMA predicted as being at risk from coastal change during the second indicative policy epoch (2026 – 2055), subject to a compliant Flood Consequence Assessment or a Stability Assessment:
 - i. development directly linked to the coastal area (e.g. beach huts, cafés, tea rooms, shops, short let holiday accommodation, touring caravan sites, camping sites, leisure activities); and
 - ii. providing substantial economic and social benefits to the community; and
 - iii. where it can be demonstrated that there will be no increased risk to life, nor any significant risk to property; and
 - iv. subject to either time-limited and/ or season-limited planning permission, as appropriate.
7. Redevelopment of, or extensions to, existing non-residential property or intensification of existing non-residential land uses on sites within the CChMA, will be permitted where it can be demonstrated by a TAN 15 compliant Flood Consequences Assessment or a Stability Assessment that there will be no increased risk to life, nor any significant risk to property and subject to a time-limited planning permission (where appropriate) and that the development complies with TAN 15 over the period of its permission.

Extensions to Existing Dwellings, Community Facilities or Services or Infrastructure

Proposals for the following types of development will be permitted in the CChMA, subject to a TAN 15 compliant Flood Consequences Assessment or a Stability Assessment:

8. Limited residential extensions that are closely related to the existing scale of the property and therefore doesn't result in a potential increase in the number of people living in the property;
9. Ancillary development within the curtilage of existing dwellings that require planning permission;
10. Key community infrastructure, which has to be sited in the CChMA to provide the intended benefit for the wider community and there are clear plans to manage the impact of coastal change on it and the services it provides;
11. Essential infrastructure, e.g. roads, provided that there are clear plans to manage the impact of coastal change on it, and that it will not have an adverse impact on rates of coastal change elsewhere.

New or Replacement Coastal Defence Scheme

Proposals for new or replacement coastal defence schemes will only be permitted where it can be demonstrated that the works are consistent with the management approach for the frontage presented in the Shoreline Management Plan, and there will be no material adverse impact on the environment.

Managing Development

Planning conditions will be applied or a planning obligation will be secured where there is a need to: limit the planned life of a development or seasonal use; remove a time-limited development or existing dwellings on cessation of use; review relevant planning permissions; manage the occupancy of a relocated dwelling.

Explanation:

- 6.2.42 New residential development is not suitable in the CCHMA due to the high risk of coastal erosion and flooding. This will apply equally to proposals to change of use of other permanent buildings to residential accommodation and replacement dwellings. The type of residential use this applies to includes individual dwellings, flats above existing commercial properties, sheltered housing, student accommodation, hostels, shared housing for disabled people, nursing homes and care homes, residential education and training centres.
- 6.2.43 Evidence in the Shoreline Management Plan 2 suggests that a small number of individual residential properties could be affected directly by land loss (as opposed to risks associated with flooding) or as a result of the effects of coastal erosion within the Plan period (up to 2026) or early in the second policy epoch referred to in paragraph 6.2.41 above. For the purpose of this policy a ‘permanent dwelling’ does not include caravans or other such moveable structures used as residential accommodation whether or not they are connected to services. To allow coastal communities to adapt to coastal change, this exception Policy facilitates the relocation and replacement of permanent dwellings to alternative locations outside the CCHMA and therefore safe from coastal erosion. This policy will help ensure coastal communities remain sustainable by maintaining current levels of housing stock and reducing risk of erosion to people and property. It gives people in homes at risk of coastal erosion the same rights as others to replace their homes in line with Policy TAI 13 in this Plan.
- 6.2.44 Policy TAI 13 sets out criteria for replacement housing in the countryside located outside the CCHMA, e.g. need to be of a similar size to the original dwelling. The same principle will be applied to proposals considered under the above Policy. This will ensure that the new dwelling continues to meet the current occupier’s needs, preventing speculative development.
- 6.2.45 Many extensions and alterations to houses do not require planning permission. Extensions that do require consent from the local planning authority will be permitted where it can be demonstrated that the benefits to the homeowner outweigh any increase in risk for the property in relation to the expected life of the property. However, as in the case for replacement dwellings, consideration must be given to the wellbeing of the occupants, risk to life as a result of flooding. Where extensions or replacement dwellings are considered acceptable in terms of this Policy due consideration will also be given to Policy PCYFF 3 and Policy TAI 13, as appropriate.

- 6.2.46 In terms of non-residential development, subject to the timeframe anticipated for loss of the property as a result of coastal erosion, appropriate uses could include holiday lets, community facilities, business uses, sports pitches and playing fields, sites for events such as markets and show grounds, subject to their location and accessibility. Occupants and/or owners would be expected to acknowledge that the use could be for a restricted time or season only in the risk assessment and consider the benefits against the risks associated with taking over a property with a limited lifetime.
- 6.2.47 Time limited planning permissions can be used to limit the planned life-time of new development. Season limited planning permission can be used to limit the use of the site/ building to exclude the winter. These types of planning permission would enable the local planning authority to retain control over the future of the development and potential risk to people and the development itself from coastal erosion. Planning conditions will be applied where there is a need to manage the risk during the development's planned life-time and manage the removal of the development to minimise the impact on the community and environment. To achieve this, planning permissions will contain conditions relating to the review of that permission in relation to the rates of coastal change and removal of development prior to the impact of the coastal change. It will be important to monitor compliance with planning conditions on time-limited applications and season- limited applications. Planning applications to renew time-limited planning permission in the CChMA where erosion has progressed at a lower rate than predicted will be given a similar consideration to a new application for development.