Replacement Local Development Plan 2018-2033

Background Paper

BP49: Net Zero Planning Framework

Deposit Plan

December 2025

Mae’r ddogfen hon ar gael yn Gymraeg hefyd.

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CONWY
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Sir Conwy, yr amgylchedd iawn i fyw, gweithio a darganfod

Conwy County, the right environment to live, work and discover

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Introduction

The document aims to cover Net Zero Carbon (NZC) policy where it is part of CBBC's RLDP planning policy framework. Several renewable and low carbon solutions exist. Many technologies are already readily available such as wind, solar PV, heat pumps, batteries, smart networks; others such as hydrogen remain a key uncertainty. Building Regulations in terms of new build are yet to catch up with meeting the desired net zero targets. CCBC produced a Local Area Energy Plan which identified key interventions which would help address the shift towards achieving net zero targets. Whilst some areas a developer-led there is scope for new development to achieve more.

Policy Context

National planning policy is set out in Future Wales – The National Plan 2040 which is a 20-year national development plan that covers the whole of Wales. It has been produced by Welsh Government and covers the period up to 2040. The plan seeks to provide a strategy for addressing key national priorities through the planning system covering big issues including the economy, housing and environment. It shows where nationally significant developments like energy, transport, water, and waste projects should take place. It shows where growth should happen, what infrastructure and services are needed and how Wales can help fight climate change. It encourages making the best use of resources, create accessible healthy communities, and protect our environment. The plan is in line with the Well Being of Future Generations (Wales) Act 2015. As well as covering the big planning issues that affect Wales, the national development plan will affect the shape and direction of future planning policy in Wales, including Local Development Plans (LDPs). The National Plan identifies four regions for future policy development in Wales – North Wales, Mid Wales, South-West Wales and South-East Wales.

Strategic Development Plans (SDPs) are expected to be prepared for all these regions. SDPs will influence the content (and length) of future LDPs with each region having its own distinctive opportunities and challenges. Regional energy issues will be covered by the SDP and link to each Local Area Energy Plan.

Future Wales: The National Plan 2040 replaces the previous Wales Spatial Plan. Unlike the Wales Spatial Plan, the National Plan has development plan status and therefore be of greater significance. The National Plan is a large piece of the planning jigsaw in Wales. The hierarchy of development being:

- Future Wales: The National Plan 2040.
- Strategic Development Plans (SDPs).
- Local Development Plans (LDPs).

SDPs and LDPs must be consistent with the National Plan. The National Plan will also be relevant to large scale infrastructure projects through the Developments of National Significance (DNS) process. So, whilst the National Plan is a Wales-wide plan, it will inform decisions on nationally significant infrastructure projects and will affect future planning policy at a local level.

Targets have been set for the generation of renewable energy:
Wales to generate 70% of its electricity consumption from renewable energy by 2030.
One Gigawatt of renewable energy capacity in Wales to be locally owned by 2030.
All new energy projects to have at least an element of local ownership.

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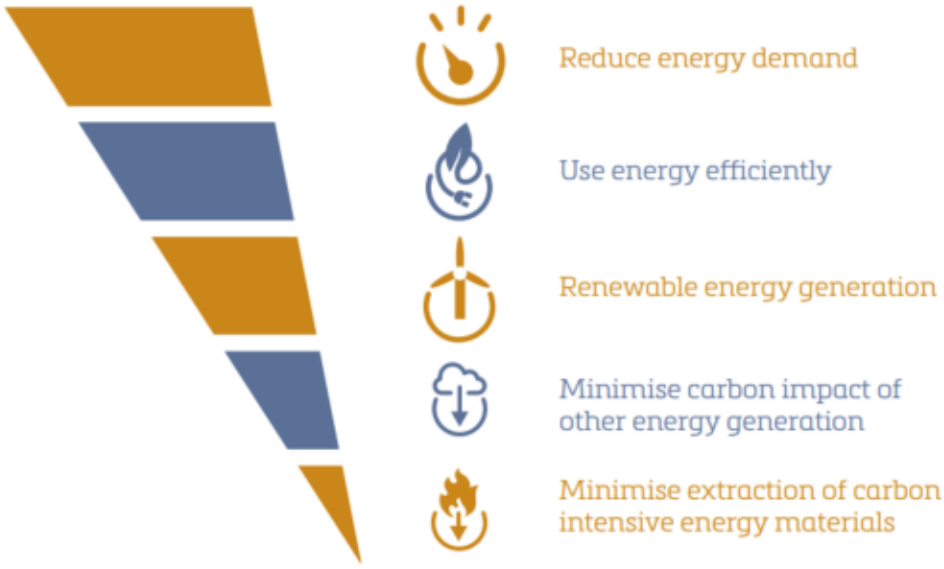
The Welsh Government PPW expects all new development to mitigate the causes of climate change in accordance with the energy hierarchy for planning, as set out in the following energy policies. Reducing energy demand and increasing energy efficiency, through the location and design of new development, will assist in meeting energy demand with renewable and low carbon sources. This is particularly important in supporting the electrification of energy use, such as the growing use of electric vehicles and heat pumps. All aspects of the energy hierarchy have their part to play, simultaneously, in helping meet decarbonisation and renewable energy Targets.

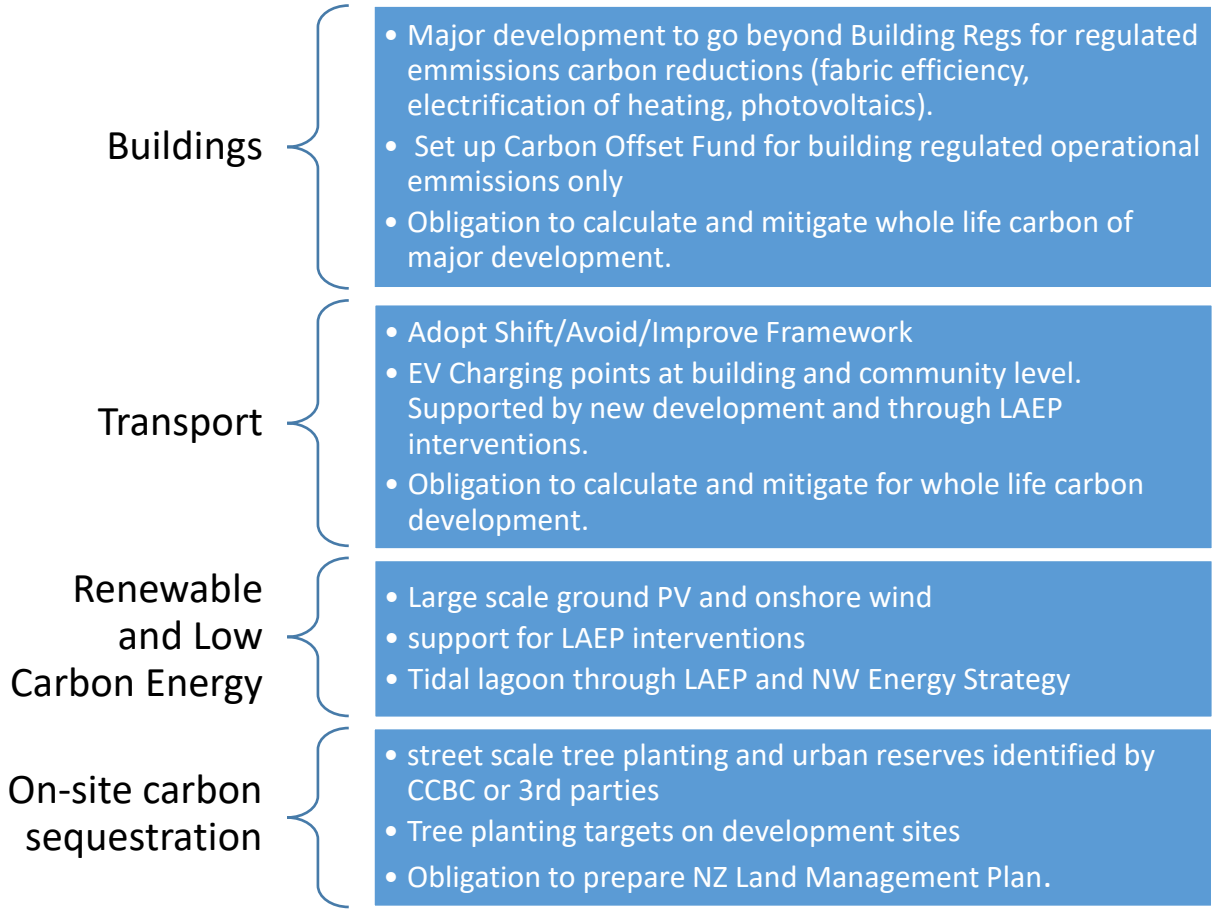
Figure Error! No text of specified style in document.**-1 - The Energy Hierarchy for planning**



The planning system has an active role to help ensure the delivery of these targets, in terms of new renewable energy generating capacity and the promotion of energy efficiency measures in buildings. It should also support new development that has very high energy performance, supports decarbonisation, tackles the causes of the climate emergency, and adapts to the current and future effects of climate change through the incorporation of effective mitigation and adaptation measures.

Local authorities are seen to have a major influence through their role as place makers. As planning authorities, they will need to develop the capacity to plan for a low carbon future, where travel is minimised and active travel enabled; where homes and businesses can access local low carbon energy generation, and where homes and public buildings become much more energy efficient. As a result, local authorities have been asked to work with the Welsh government to develop local and regional energy plans, which will provide strong evidence to inform these place-based plans for a net zero society.

RLDP Approach



Buildings

The residential buildings sector covers emissions from energy usage in homes, as well as work to reduce embodied carbon in constructing and retrofitting residential properties.

Residential buildings are responsible for 10% of Welsh emissions in 2019. The dominant source of emissions is from combustion (for heating and cooking) in residential buildings, which make up 97% of the sector emissions and 9.3% of total Welsh emissions.

The Welsh Government ambitions in this sector are that by 2025:

- They expect around 148,000 houses across Wales to receive retrofit measures to reduce heat loss.
- Aim to move from fossil fuels through increasing the proportion of heat that is electrified by 3%.

- All new affordable homes in Wales will be built to net zero carbon, and our ambition is that our net zero standards are adopted by developers of all new homes regardless of tenure by this date.

There are three broad areas of mitigation and along with the policies and proposals to deliver are shown in Figure 4. Delivery vehicles such as the planning regulations, building regulations, and building codes will be discussed later in the report.

Policy EN/2 achieving net zero carbon buildings in terms of development management requirements, EN/3 covers Energy efficiency in buildings and EN/7 covers Carbon offsetting.

Transport

Net Zero Carbon Transport

The transport sector is a major source of greenhouse gases, and it is widely recognised that achieving the rapid decrease in emissions from the sector required, to contribute to meeting net zero targets and interim carbon reduction commitments, will be challenging.

Transport carbon emissions depend directly on the number of vehicle kilometres travelled and the emissions produced per vehicle kilometre. Therefore, to achieve decarbonisation, measures implemented need to:

- Reduce vehicle distance travelled; and/or
- Reduce the emissions produced on remaining vehicle kilometres which will depend on changes in fuel/energy type, vehicle design and factors such as driving speed.

Most transport is **'derived demand'**, i.e. undertaken to provide those travelling with access to services, activities, or opportunities. The key challenge for decarbonising the transport sector is therefore to identify measures that provide access to equivalent services and opportunities in an alternative, more efficient manner. The measures then reduce the amount of travel required for accessibility and the energy use and emissions associated with the travel.

Policy STA/1 is the overarching policy covering transport chapter in the RLDP covering energy, active travel, decarbonization, Electric and ULEVs.

Renewable and Low Carbon Energy

BP63 “Renewable and Low Carbon Energy” covers current and future such technologies including solar PV and wind energy and the need for smart networks for maximising such production and distribution in Conwy. BP60 “Local refinement study for wind and solar” provides additional information which defines areas where the principle of wind and solar localities would be expected. This followed a desk-based constraints mapping exercise; however, additional site surveys and grid connection investigations are still necessary.

Policy EN/1 is the overarching policy covering transport chapter in the RLDP covering energy, solar and wind energy, carbon offsetting. EN/8 covers grid connection and storage.

On-site Carbon sequestration

BP62 cover carbon sequestration in further detail including the assessment of strategic sites.

In practical terms, achieving Net Zero emissions in Conwy RLDP proposed site allocations will mean, once all feasible carbon emissions reduction measures have been applied to development, sequestration of equivalent residual carbon emissions from the atmosphere through nature-based solutions such as tree planting and changes in land management practices on site (within the boundaries of the proposed development), or offsite (elsewhere in the County Borough or beyond).

In the section above, the impact of onsite land-based removals from broadleaved woodland for the strategic sites was explored and the importance of maximising such removals was established. However, new development can maximise vegetation

cover (not just woodland) through incorporation into design at two levels with even higher benefits in terms of carbon sequestration:

- Street-scale planting: Vegetation in the urban space with tree-lined streets, green walls, native hedgerows, planted front and rear gardens.
- Urban reserves: Larger areas of planting set aside within development area to be used as community space. This might include areas of woodland, meadow, or community food-growing space.

Once carbon sequestration opportunities have been maximised on site, any residual emissions would need to be sequestered offsite either by the developer, or by the Council on behalf of the developer, to achieve Net Zero.

Policy EN/7 covers Carbon offsetting.

LAEP (Local Area Energy Plan).

The Conwy LAEP BP55 Local Area Energy Plan sets out a vision for what a zero carbon energy system could look like in 2050, and describes key immediate actions for Conwy County Borough Council.

Based on the evidence developed for the LAEP the main priority intervention areas are set out below. These represent the areas where physical changes to the energy system are needed. To support delivery of the plan's wider objectives, these will need to be supported by the right governance and engagement, policy environment and finance.

Key LAEP interventions:

1. Whole building retrofit.
2. Development of public EV charging infrastructure.
3. Development of offshore wind (both extensions new developments.
4. Development of tidal lagoon infrastructure.
5. Development of onshore renewables (Onshore wind and Ground PV) and associated storage.

6. Heat decarbonisation of off gas grid properties.
7. Reduction of transport energy demand through active travel measures.

Policy EN/9 covers the LAEP and in-principle support for addressing the interventions.

Conclusion

Local authorities are seen to have a major influence through their role as place makers. As planning authorities, they will need to develop the capacity to plan for a low carbon future, where travel is minimised and active travel enabled; where homes and businesses can access local low carbon energy generation, and where homes and public buildings become much more energy efficient. As a result, local authorities have been asked to work with the Welsh government to develop local and regional energy plans, which will provide strong evidence to inform these place-based plans for a net zero society.

The RLDP, along with collaborative working, is key to delivering LAEP interventions. Whilst the RLDP can provide the policy to support and control development and identify and assess land use suitability there is a reliance on other areas for developer-led.

Principally all developments should demonstrate a consideration to sustainable construction and design in accordance with net zero targets. In addition, all development should consider electrification of heat. This should be explored through an Energy Strategy demonstrating low carbon supply options to support development proposals.

Whilst there are risks within the plan period regarding political shift in the level of support for net zero targets the current position is to support the LAEP and framework in aiming for net zero carbon and striving towards carbon-positive developments where possible especially for major development sites.