# Appendix B

# City Wide Low Carbon Development Strategy

# Scoping Paper

## 1. Vision

Cardiff has declared a climate emergency and has set out a strategic response to deliver a for carbon neutral Cardiff by 2030in its One Planet Cardiff Strategy One Plant Cardiff Strategy. This recognises the need for a strong partnership approach, with all stakeholders and citizen in the city having a place in addressing the real threats of climate change

The strategy recognises that new development in the city has a vital role to play in this decarbonisation agenda. ***Future development will be zero carbon or have very high standards of energy performance*** and significant weight will be given to these benefits in making decisions on planning applications.

Alongside this national planning and building regulations, policies have been recently realigned and fully support the Council's ambition for low/zero carbon development.

This paper sets how the Council's Planning Service will position itself to implement this new policy context for development

## 2. Key Policy Background

### Future Wales

Future Wales sets the direction of development in Wales to 2040. As the National Development Framework, Future Wales is the highest tier of development plan and is focused on solutions to issues and challenges at a national scale. Future Wales sets out a range of national policies relating to enabling low carbon development and these are listed below:

- Large scale mixed-use development (100 or more dwellings or 10.000 sqm) should, where feasible, have a heat network with a renewable / low carbon or waste heat energy source. Planning applications for such development should prepare an **Energy Masterplan** to establish whether a heat network is the most effective energy supply option and, for feasible projects, a plan for its implementation. (Policy 16).
- Cardiff is identified as a priority area for **District Heat Networks** and the LPA should identify opportunities for District Heat Networks and plan positively for their implementation (Policy 16). It should be noted that the City Council has recently been successful in securing Government funding for a major heat network in the Cardiff Bay Area. New developments in reasonable proximity to this network will be expected to incorporate this source of heat as part of any carbon energy strategy and design.
- For non-residential developments LPAs should seek a minimum of 10% of car parking spaces to have **electric charging points** (Policy 12).

### Planning Policy Wales (Edition 11)

The latest version of PPW states that the planning system should support new development that has very high energy performance and supports decarbonisation and that the Welsh Government's policy is to **secure zero carbon buildings** while continuing to promote a range of low and zero

carbon technologies as a means to achieve this. Relevant part of the guidance to enabling low carbon development are listed below:

- In order to further promote energy efficiency and energy conservation, planning authorities should consider including development plan policies requiring applications for major development to be accompanied by an **Energy Report**. This independent report should include recommendations to the developer relating to energy efficiency and appropriate renewable energy technologies that could be incorporated into the development. A response to that report from the developer should also accompany the application. If planning authorities feel that insufficient consideration has been given to energy issues in project design, they may refuse planning permission.
- The guidance also states that planning authorities should assess **strategic sites** to identify opportunities to require higher sustainable building standards, including zero carbon, in their development plan. In bringing forward standards higher than the national minimum, which is set out in Building Regulations, planning authorities should ensure the proposed approach is based on robust evidence and has taken into account the economic viability of the scheme.

- Developers **should take into account future requirements for carbon reduction** in new buildings when designing their schemes, as a result of changes to **Building Regulations** in Wales; being mindful of any future changes will ensure design aspects of requirements are considered as early as possible.

**Adopted Local Development Plan**

The adopted Local Development Plan includes the following policy relevant to low carbon development:

***EN12: RENEWABLE ENERGY AND LOW CARBON TECHNOLOGIES***

***Development proposals are required to maximise the potential for renewable energy. The Council will encourage developers of major and strategic sites to incorporate schemes which generate energy from renewable and low carbon technologies. This includes opportunities to minimise carbon emissions associated with the heating, cooling and power systems for new development. An independent energy assessment investigating the financial viability and technical feasibility of incorporating such schemes will be required to support applications.***

Major development sites are taken to be those of 100 dwellings and above, or, commercial developments of 1,000 square metres or more. Developers are expected to submit an independent energy assessment investigating the financial viability and technical feasibility of incorporating such schemes. Statements should be submitted at the planning application stage to ensure that any viability assessment reflects technological developments and economic circumstances.

**Building Control Regulations**

The Building Regulations 2010 (as amended) makes provision for Energy Efficiency Requirements in relation to buildings. Regulation 25 confirms that **new buildings must be designed to Carbon Zero target performance requirements** but also makes provision to require the developer to provide an assessment of the proposal confirming why with relevant justification why this cannot be reasonably achieved citing, practical, technological and economic reasons.

The technical requirements of Building Regulations are supported by Approved Documents which outline a series of design criteria that if followed will in effect be deemed to satisfy the fundamental requirements of the regulations. The Approved Documents to Parts F (Ventilation) and L (Conservation of Fuel & Power) are currently being redrafted in readiness for implementation later in 2021. **The Approved Documents will spell out an acceptable methodology for calculating $CO_2$**

**Target Emissions for building design** providing the opportunity to adopt different technologies to assist in achieving those targets such as PV, wind energy, Heat Pumps, District Heating etc. in addition there will be design information relating to individual elements of the building such as walls, floors, roofs, windows and doors.

Parts F & L 2021 are the first in a series of planned revisions to the Building Regulations in respect of energy saving design; and sets out proposals for a Future Buildings Standard, which **provides a pathway to highly efficient non-domestic buildings which are zero carbon ready**, better for the environment and fit for the future. The next phase will be developed up to 2025 and implemented soon after. Following this further refinements will take place on a regular basis all leading to meet the UK targets for Carbon Zero.

## 3. Example Approaches

Achieving Zero carbon buildings

- Development will be expected to achieve:

  A minimum 10% reduction in regulated CO2 emissions through energy efficiency measures; and A minimum 35% reduction in regulated CO2 emissions through a combination of energy efficiency measures and on-site renewable energy generation.

  After applying on site measures, development is expected to achieve a 100% reduction in its remaining regulated and unregulated emissions through the use of carbon offsetting.

  Where existing buildings are being converted into new uses and it is not feasible for the full CO2 emission reduction to be met developments should aim for a 20% reduction in regulated CO2 emissions on site.

- Introduction of a proposed mechanism to collect financial contributions to renewable energy schemes as an 'allowable solution' based on the volume of CO2 emissions to be offset, linked to a list of unfunded renewable energy schemes.

EV Charging Points

- Requirement for all individual dwellings with one or more dedicated parking spaces to include infrastructure for electric charging points.

- For developments of 10 dwellings or more at least 20% of dwellings will be expected to have active charging facilities, and the remaining 80% of dwellings will be expected to have passive provision.

- For developments of 100 dwellings or more dwellings there is requirement to provide at least one rapid charging point clustered with a fast charging point for every 10 car spaces and a requirement to facilitate the provision of an electric or ultra-low emission car club.

- For all non-residential developments providing 1 or more car parking spaces, ducting should be installed to enable provision of charging facilities for electric or other ultra-low vehicles and where 10 or more car parking bays are provided, at least 20% of those bays are required to provide active charging facilities for electric vehicles, and passive provision is required for all remaining bays.

- In major non-residential development where provision is required for taxi waiting, the taxi spaces will be expected to include active charging facilities**.**

## 4. Actions & Next Steps

| Action | Issues | Responsibility | Time Scales |
|---|---|---|---|
| Prepare detailed Practice Note on designing low carbon developments | • Content<br>  ○ Applying the policies<br>  ○ Sustainable Energy<br>  ○ Allowable solutions<br>  ○ Sustainable Design and Construction<br>• Research best practice<br>• Advice from expert consultants | Energy Team<br>Planning<br>Building Control | Sept 2021 |
| Secure specialist resource to assess development proposals in terms of zero carbon development | • In house or third party<br>• If in house where does it sit<br>• Funding | Energy Team<br>Planning<br>Building Control | Sept 2021 |
| Build principles into Replacement LDP Process and included in Preferred Strategy | • Feed into strategic options consultation Autumn 2021<br>• Feed into Preferred Strategy Consultation Autumn 2022 | Energy Team<br>Planning<br>Building Control | Sept 2022 |