

Planning for Climate Change Supplementary Planning Document

This New Forest District Council consultation is open to the public until 11 July 2023, and all documentation can be found at <https://newforest.gov.uk/PlanningforClimateChange>

The full document aims to provide focus for developers, using best practice and standards for adoption, for planning application requirements that meet Local Plan policies. These include policies *STR1: Achieving Sustainable Development* and *ENV3: Design Quality and Local Distinctiveness*.

This report is a summary only of the consultation documents named.

Part A: Introduction – Full text of the two named policies is set out, with three purposes in mind

- Take all practicable steps to decarbonise running of buildings;
- To meaningfully reduce embodied carbon in construction; and
- To ensure development is climate change adapted.

It's not always feasible to achieve best practice in one step, in which case development should be zero carbon ready for when it can be achieved. Methods should be identified and enabled during design. This will minimise impact, cost and inconvenience later.

The document compliments the NFDC Greener Housing Strategy following the climate and nature emergency action plan and has focused on decarbonising the District's own housing stock through various projects. Two response types are required to combat climate change, being *Mitigation* – action to reduce impact of human activity on the system and *Adaptation* – adjustments made to natural or human systems in response to actual or anticipated impacts, to mitigate harm or exploit beneficial opportunities.

Embodied carbon – emitted from energy used during construction, includes transportation of materials etc, which can be influenced by developers. Periodic maintenance, demolition and waste disposal processes minus any recyclable materials/energy recovery.

Operational carbon – this is emitted over time by energy use during occupation of the building, through *Regulated emissions*; energy used to run the building such as lighting, heating, hot water. Energy efficiency and carbon standards controlled by Building Regulations system.

Unregulated emissions are remaining emissions from human behaviour, being other devices or appliances the occupiers choose to fit or plug in. (televisions/gaming/fans/kettles etc).

Policy Context - In 2018 the Intergovernmental Panel on Climate Change reported there was only 12 years (until 2030) to stop irreversible damage from climate change. Policies that have been embodied since and inform this document – Climate Change Act 2008 (amended 2019) Environment Act 2021 both provide legal requirements for net zero carbon emissions, air quality, resource efficiency and waste reduction. National Planning Policy Framework 2021, with Flood Risk and Coastal Change guidance updated in 2022, plus National Design Guide (2021) outlining well designed places with conserved natural resources at the heart. Building Regulations were updated in 2022 to encompass conservation of fuel and power, plus approved documents F: Ventilation, O: Overheating and S: Infrastructure for the charging of electric vehicles.

Benefits and Costs of Net Zero Carbon Development – Some sectors will require research and development investment, others technological advancement. Techniques, processes and technology to run buildings without adding to carbon emissions are already on the market. Lowering embodied carbon during construction will require further innovation on materials and procurement. Energy efficiency of new homes has remained constant for over 10 years, with rate of improvement paused since the Zero Carbon Homes target was withdrawn in 2016. Building Regulation improvements have helped, but more is needed than the minimum compliance currently offered by the construction sector.

Dwelling cost premium with net zero delivery is considered an additional 5-6% for a terraced house, 4-5% for a flat above 2021 compliant premises. Changes need to be made sustainable for all by driving down prices from improved processes such as airtightness, solar panel prices having reduced significantly in the last ten years so it is expected other systems will follow. It is expected buyers will pay a slightly higher build price for a reduction in their overall running costs, with recent survey demonstrating buyers are willing to pay 9.4% more for an energy efficient retrofitted property, up to 15.5% more if it has a high efficiency rating. Information regarding retrofitting heat pumps is considered 5 times more expensive than fitting at original build phase. Retrofitting also generates further embodied carbon emissions during refurbishment. Even if there is no realistic alternative to oil or gas boiler at construction point, if design and specification of the building offers a future air source heat pump retrofit it will lessen its future cost.

Part B: Requirements for Planning Applications

The full document provides a diagram of recommended measures to be taken for dwellings and other forms of build. These include fitting of PV, aspects to avoid summer overheating, optimum building orientation, rainwater collection etc.

Planning application information requirements have been laid out in a table, which has various development sections – **1-9 homes and under 1,000sqm as minor development**, 10-49 and 50+ homes, over 1000 sqm as major development. Topics shown vary in response depending on type of development. The topics that refer to all categories of development are

<ul style="list-style-type: none">• Minimising energy demand by design• Low carbon heating systems• Energy use and carbon calculations• Onsite renewable energy• Renewable energy calculation• Cycle parking and EV charging	<ul style="list-style-type: none">• Overheating risk assessment• Use of mechanical ventilation with heat recovery• Managing surface water runoff• Flood resilience measures• Reducing mains water demand.
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Planning Application Climate Change Statements – Evidence of how a development conforms with the climate change aspects of the Local Plan should be submitted in this document on application, unless clearly not relevant to the type of development. Developer designs should encompass best practice, take meaningful steps and should meet Future Homes and Future Buildings standards. A reduced level of information is required for minor developments (see above)

1: Minimising energy demand and targeting net zero carbon in operation - Passive design needs to be considered to ensure solar gain is maximised, and the document gives targets of heating demand and recommendations on using ‘smart’ control and monitoring systems. Where net zero carbon in operation cannot be achieved, design should encompass zero carbon ready with future proofed designs. A series of Climate Change Statements are shown below

CCS 1a: Minimising energy demand by design (all development) – Developers should explain how design brief, specifications and commissioning process have sought minimal energy use

CCS 1b: Low carbon heating systems (all development) – Developer to state if making commitment to Future Homes and Buildings Now or why it is not possible. Heating system confirmed as condition of approved application if committed to.

CCS 1c: Energy use and carbon calculations (all qualifying development) – At detailed design stage, calculation of space heating demand, total operational energy demand, CO2 emissions per sqm for the building proposed and total operational carbon emissions in tonnes per annum for the whole development.

CCS 1d: Smart energy systems (all development) – Confirmation of smart energy use and heating control/monitoring. Note whether system can measure onsite renewable energy generation and use. Explain why if not.

CCS1e: Future proofing statement (any residential development unable to commit to low carbon heating system) – Detailed design stage to have statement of works required for heat pump installation in future, including other upgrading necessary for winter comfort. Any buyer to be provided the information.

CCS 1f: Option to purchase heat pump pre-installation (relevant residential developments of 10 or more homes) – If heat pumps not installed due to site viability concerns, the new buyers should be provided opportunity to purchase one from the developer at a discounted cost.

2: Onsite renewable energy concerns – Onsite renewable energy generation to be provided where able, to meet at least the annual operational energy use to reach net zero carbon development in operation. Targeting generation of at least 120kWh/year per sqm of building footprint is recommended for residential units.

CCS 2a: Onsite renewable energy (all developments) – Approach to optimising generation of onsite renewable energy to be set out or explain why it is not possible. Details to be detailed in a planning condition if offered.

CCS 2b: Renewable energy generation calculation (all development providing onsite renewable energy generation) – Provide calculation of renewable energy onsite generation per building and per sqm of footprint. Value to be shown as a percentage of best practice target (120kWh/m²/year) Provide justification of practical outcome should this not be the predicted annual use level.

CCS 2c: Option to purchase PV pre-installation (all developments of 10 or more homes where installation is feasible) – If financial viability precludes PV installation, a new buyer purchasing off-plan with suitable roof to have discounted PV cost opportunity from developer.

3: Reducing embodied carbon emissions – On the way to 2050 decarbonisation of construction, developers to meaningfully reduce embodied carbon emissions from materials and processes up to building completion.

CCS 3a: Reducing embodied carbon (all major development) – Identification of carbon reduction methods in the construction process.

CCS 3b: Calculating embodied carbon reductions (developments of 50 or more homes/1,000+sqm developments) – Using tons of CO2 as percentage of total embodied carbon, provide calculation of carbon emissions saved using a recognised methodology.

4: Sustainable travel – Minimise need to travel and optimise necessary travel using active and public transport modes, or electric vehicle use. Design and access statements, transport assessments or travel plans requirement is already dictated by the Local Plan adopted policies and Supplementary Planning Documents.

CCS 4a: Cycle parking and EV charging (all development) – Secure and accessible cycle parking and EV charging to be provided at property level for number of likely users.

CCS 4b: Building for a healthy life (residential development 50+ homes) Proposals to be assessed using the 'Building for a healthy life' design approach, seeking 'green light' (best) achievement for all assessment criteria.

5: Avoiding overheating – General urban cooling to be enabled by design including planting strategy, green and blue infrastructure and hard landscaping. This reduces need for air conditioning installation.

CCS 5a: Natural heatwave mitigation (all major development) – Demonstrate how heatwave mitigation has informed design, including blue and green infrastructure, building materials etc.

CCS 5b: Overheating (all residential development) – Submission of the 'Good Homes Alliance early stage overheating risk tool' assessment prior to detailed design stage. Total overheating risk should be 'low' If this cannot be achieved, explain mitigation measures instead. Tool also useful for non-residential use.

CCS 5c: MVHR (all development) – Confirm if Mechanical Ventilation Heat Recovery will be provided.

6&7: Flood risk reduction & SUDS / Drought resilience and using water efficiently – Safely and naturally dissipate and manage run off under extremes of climate. Use SUDS and other naturalised mechanisms where effective, minimising runoff discharge to sewers and maximise amenity, biodiversity and water quality benefits. Exceed Building Regulations for water consumption efficiency. Private gardens public areas and greenspaces plus water features to be drought and climate resilient and sustained without mains water.

CCS 6a: Managing surface water runoff (all developments) – Measures to dissipate, hold or slow movement of water naturally in public and private areas. Hardstanding or paved areas not water permeable to be explained.

CCS 6b: SUDs (all major developments where appropriate) – Show how SUDs are integral to design from master planning stage. Proposed piped or other runoff discharge to sewers to be accompanied by justification text. Minimising nutrient runoff needs to be included in SUDs design.

CCS 6c: Flood resilience measures (any development where its flood risk assessment identifies residual flood risks, including residual risks identified when applying the appropriate Environment Agency climate change allowance) – Summary and cross referencing needed to the appropriate Flood Risk assessment section that addresses proposed resistance and resilience measures for the development.

CCS 7: Reducing mains water use (all developments) – Water use efficiency standard to be specified for the development. Installation and location defined for water butts of appropriate size, to be stated on plans for all front and rear gardens or yard spaces where a downpipe if provided. Detail any other measures to reduce the need for mains water by use of rainfall collection or surface water runoff in both public and private realms.

Part C: Climate Change mitigation and adaption

This section is comprised of measure from the Net Zero Carbon Toolkit, which has been updated for a New Forest setting. It is mainly for use of developers but can also be used by homeowners. The toolkit with accompanying appendices covers all stages of building design and construction, maintenance and operation. It provides key performance indicators for various types of buildings, advice on aspects such as Passivhaus tools and certification, fabric first approach, designing out overheating risks etc. It then moves on to Appendices on the Climate Change related local plan policies, case studies and a checklist for design and construction.

SUGGESTED RESPONSE

See separate NFDC response form with drafted text.