

An additional meeting of the Cabinet will be held at Shire Hall, Market Place, Warwick on Wednesday 15 May 2024 at 5.30pm.

Councillor I Davison (Chair)

Councillor E Billiald
Councillor J Chilvers
Councillor J Harrison
Councillor J Kennedy

Councillor C King
Councillor W Roberts
Councillor J Sinnott
Councillor P Wightman

Also attending (but not members of the Cabinet):

Chair of the Overview & Scrutiny Committee	Councillor A Milton
Liberal Democrat Group Observer	Councillor A Boad
Conservative Group Observer	Councillor A Day
Whitnash Residents Association Group Observer	Councillor J Falp

Emergency Procedure

At the commencement of the meeting, the emergency procedure for Shire Hall will be announced.

Agenda

1. **Apologies for Absence**
2. **Declarations of Interest**

Members to declare the existence and nature of interests in items on the agenda in accordance with the adopted Code of Conduct.

Declarations should be disclosed during this item. However, the existence and nature of any interest that subsequently becomes apparent during the course of the meeting must be disclosed immediately. If the interest is not registered, Members must notify the Monitoring Officer of the interest within 28 days.

Members are also reminded of the need to declare predetermination on any matter.

If Members are unsure about whether or not they have an interest, or about its nature, they are strongly advised to seek advice from officers prior to the meeting.

Part 1

(Items upon which a decision by Council is required)

3. Adoption of Net Zero Carbon DPD and associated SPD

To consider a report from Place, Arts & Economy **(Pages 1 to 346)**

Part 2

(Items upon which a decision by Council is not required)

4. Newbold Comyn Cycle Trails

To consider a confidential report from Safer Communities, Leisure & Environment
(Pages 1 to 26)

5. Withdrawal of proposal for Artificial Turf Pitch at Newbold Comyn

To consider a report from the Programme Manager **(To follow)**

6. Public and Press

To consider resolving that under Section 100A of the Local Government Act 1972 that the public and press be excluded from the meeting for the following items by reason of the likely disclosure of exempt information within the paragraphs of Schedule 12A of the Local Government Act 1972, following the Local Government (Access to Information) (Variation) Order 2006, as set out below.

Item Numbers	Paragraph Numbers	Reason
7	3	Information relating to the financial or business affairs of any particular person (including the authority holding that information)

7. Confidential Appendix to Item 4 -Newbold Comyn Cycle Trails

To consider a confidential report from Safer Communities, Leisure & Environment
(Pages 1 to 22)
(Not for publication)

8. Confidential Appendix to Item 4 -Newbold Comyn Cycle Trails

To consider a confidential report from Safer Communities, Leisure & Environment
(Pages 1 to 22)
(Not for publication)

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Title: Adoption of Net Zero Carbon DPD and associated SPD
 Lead Officer: Andrew Cornfoot, Planning Policy & Major Sites Delivery Manager (andrew.cornfoot@warwickdc.gov.uk)
 Portfolio Holders: Councillor Kennedy (Climate Change) and Councillor King (Place)
 Wards of the District directly affected: All

Approvals required	Date	Name
Portfolio Holder	29/04/24	Cllr James Kennedy (Climate Change) and Cllr Chris King (Place)
Finance		Andrew Rollins
Legal Services	26/04/24	Ross Chambers
Chief Executive	25/04/24	Chris Elliott
Director of Climate Change	25/04/24	Dave Barber
Head of Service(s)	25/04/24	Philip Clarke
Section 151 Officer		Andrew Rollins
Monitoring Officer	25/04/24	Graham Leach
Leadership Co-ordination Group	29/04/24	
Final decision by this Committee or rec to another Cttee / Council?	No Recommendation to Council to adopt the DPD	
Contrary to Policy / Budget framework?	No	
Does this report contain exempt info/Confidential? If so, which paragraph(s)?	No	
Does this report relate to a key decision (referred to in the Cabinet Forward Plan)?	Yes, Forward Plan item Ref.1,378 – scheduled for 15 th May 2024	
Accessibility Checked?	Yes	

Summary

This report provides an update on the Main Modifications consultation and the subsequently published Inspector's Report, in which the Inspector concluded, through Examination that the Development Plan Document is 'sound' and has been prepared in accordance with legal and procedural requirements. The report therefore seeks agreement from Cabinet to recommend to Council to adopt the Net Zero Carbon Development Plan Document. If adopted, it will become part of the Development Plan for the area. The report also seeks Cabinet approval to adopt an associated Supplementary Planning Document that will provide advice and guidance to applicants and decision makers.

Recommendation(s)

- (1)** That Cabinet notes the Inspector's Report on the Examination of the DPD (Appendix 1), and specifically that he has concluded that the plan meets the tests of soundness and has been prepared in accordance with legal and procedural requirements and thus is 'capable of adoption'.
- (2)** That Cabinet recommends to Council to adopt the Net Zero Carbon Development Plan Document (Appendix 2), in accordance with Section 23 of the Planning and Compulsory Purchase Act 2004; and that Cabinet note that the adopted Net Zero Carbon Development Plan Document will be the Plan submitted on 17th October 2022 as amended by the schedule of Main Modifications and Additional Modifications (Appendices 3 and 4).
- (3)** That Cabinet notes that the adoption statement and final sustainability appraisal report is published on or before Monday 20th May 2024 in accordance with regulations 17 and 26 of the Town and Country Planning (Local Planning) Regulations 2012 (as amended).
- (4)** That Cabinet notes the statement of public consultation (Appendix 9) and Schedule of Proposed Modifications to the SPD (Appendix 10) and approves the adoption of the amended Net Zero Carbon Supplementary Planning Document (Appendix 8), to be formally adopted contemporaneously with the parent DPD, subject to Recommendation 2 and the subsequent decision of Council.

1 Reasons for the Recommendation

1.1 Background – what is the DPD?

- 1.2 Since its declaration of a Climate Emergency in 2019, this Council has developed a Climate Emergency Action Plan (CEAP), setting targets and actions to tackle climate change and mitigate its impacts. The production and adoption of the Net Zero Carbon Development Plan Document (DPD) is considered to be a critical part of the Climate Change Action Programme and a key tool in meeting the Council's climate change targets.
- 1.3 The DPD, once adopted will form part of the Development Plan for Warwick District and is one of the first to be produced by a local authority in England on this subject matter and therefore is pioneering in many respects.

- 1.4 The DPD specifically focuses on minimising carbon emissions from existing and new buildings (of all uses) within the District to support the achievement of national and local carbon reduction targets.
- 1.5 To work towards this aim, the DPD is designed to ensure that new development's contribution to the District's carbon deficit is minimized and that new homes do not add to the significant number of existing buildings in the District that will need costly and disruptive retrofit as part of the local and national transition to achieve net zero carbon. By bringing forward performance standards equivalent to the Future Homes Standard, in advance of its national introduction, the new homes should not need future retrofit, and by collecting carbon offset payments the DPD will raise funds to deliver other vital but currently underfunded actions necessary for the national and local transition to net zero – such as additional renewable energy, retrofit of other existing buildings, or creation of woodland.
- 1.6 **Background – progress since submission**
- 1.7 At its meeting on 10th August 2022, Cabinet agreed to the submission of the Net Zero Carbon Development Plan Document (DPD) to the Secretary of State for its Examination alongside a schedule of proposed revisions arising from the second of two public consultations on the emerging policy document.
- 1.8 Subsequently, Council endorsed the submission of the document on 7th September 2022.
- 1.9 On 17th October 2022, the DPD was submitted to the Secretary of State (through the Planning Inspectorate (PINS)). In order to submit the DPD, the Council were also required to appoint a Programme Officer to assist the Inspector in the administration of the examination.
- 1.10 On 7th November 2022, PINS appointed Mr. A McCormack as the Inspector to hold an independent examination of the DPD.
- 1.11 Mr. McCormack wrote to the Council on 8th December 2022, confirming that he had undertaken an initial review of the Plan, the supporting evidence and representations made on it prior to its submission and from this was satisfied that the examination of the Plan could progress.
- 1.12 Council officers and Mr. McComack engaged in further correspondence and three days of public Examination hearing sessions were arranged commencing on 7th March 2023.
- 1.13 The Council were represented at the hearing sessions by Council officers alongside specialist consultants that have supported the production of the DPD. Other interested parties also attended and contributed to the hearing sessions.
- 1.14 On 30th March 2023 Mr. McCormack wrote to the Council with a 'post hearing letter' outlining the next steps for the DPD Examination. He also praised the Council's management of the sessions stating *"...I would like to thank the Council's Team for the way in which the hearing sessions were approached, arranged, and conducted. This enabled the hearing sessions to take place as smoothly, effectively, and efficiently as possible and for that I am grateful"*.
- 1.15 In his letter, the Inspector requested further information to be submitted and indicated that Main Modifications to the DPD will be required for reasons of 'soundness' in accordance with Paragraph 35 of the National Planning Policy Framework (NPPF). As such, it would be necessary to undertake a period of public consultation on the modifications.

- 1.16 Mr. McCormack provided an indicative timetable for the next stages of the Examination that would see his final report being anticipated by the end of September 2023 (he subsequently revised this to 'end of October 2023').
- 1.17 The following sections provide more recent updates including on Main Modifications, a further public consultation and findings of the Inspector's Report.
- 1.18 **Main Modifications**
- 1.19 Following a response from the Council to Mr. McCormack's letter of 30th March in which he had requested additional information, he subsequently wrote to the Council again on 12th May 2023 confirming that he was satisfied with the content of additional documents that the Council had provided. A Schedule of Proposed Main Modifications (and minor changes, referred to as Additional Modifications) were produced by the Inspector and asked for further work to be completed by the Council by 22nd May 2023.
- 1.20 On 22nd May 2023 officers wrote to the Inspector with a final list of proposed Main Modifications, Final Schedule of Additional Modifications, a Sustainability Appraisal/Habitat Regulations Assessment update, and a composite version of the DPD showing all proposed modifications indicated in the schedules.
- 1.21 On 5th June 2023, the Council commenced a statutory 6-week Main Modifications consultation that ended on 17th July.
- 1.22 A Consultation Statement summarising the Main Modifications consultation responses was produced by officers and sent to the Inspector on 26th July (Appendix 5).
- 1.23 There were 13 responses to the public consultation, comprising of responses from statutory consultees (6), individual residents (5), land promoters and developers (2). At its Cabinet meeting on 5th July 2023, this Council also endorsed the Main Modifications and confirmed that they did not wish to make any representation to the consultation.
- 1.24 The Main Modifications consultation is to solely consider issues of soundness and legal compliance. Having considered the representations made in response to the consultation, the Council confirmed to the Inspector that it believed that the comments did not raise any issues of soundness or legal compliance.
- 1.25 **Further consultation – NPPF and 2023 Written Ministerial Statement**
- 1.26 Unfortunately, owing to illness at PINS, there were delays to the anticipated October release of the Inspector's Report. In the intervening period, a Written Ministerial Statement (WMS) relating to 'Local Energy Efficiency Standards' was made on 13th December 2023 and the National Planning Policy Framework (NPPF) was updated on 19th December 2023.
- 1.27 The Inspector wrote to the Council on 9th January 2024 with regards to these changes to the national policy context and requested that the Council undertook a further consultation specifically relating to these matters, whilst also requesting the Council's response. The consultation was open to all those that had made representations to the Regulation 19 consultation on the DPD and ran from 9th January 2024 until 24th January 2024. A total of 6 representations were made to the consultation including 1 from the Council, 2 from individuals

and 3 from housebuilders. The representations were sent to the Inspector for consideration ahead of publication of his final report.

1.28 **The Inspector's Report**

1.29 Local Plans are examined to assess whether they have been prepared in accordance with legal and procedural requirements, and whether they are sound. Paragraph 35 of the NPPF sets out the tests of soundness as and Plans are 'sound' if they are:

- a) Positively prepared;
- b) Justified;
- c) Effective; and
- d) Consistent with national policy.

1.30 On 9th April 2024 the Council received the Inspector's Report on the Examination of the Warwick Net Zero Carbon DPD (Appendix 1). The Inspector has concluded that the DPD *"provides an appropriate basis for the planning of the district with regard to attaining net zero carbon development and minimising carbon emissions in new and existing development, provided that a number of main modifications [MMs] are made to it"*.

1.31 The Inspector's Report found that the Plan has complied with the legal duty to co-operate requirement and he concluded that *"I am satisfied that where necessary the Council has engaged constructively, actively and on an on-going basis with its neighbouring authorities and appropriate relevant agencies in the preparation of the DPD"*.

1.32 The Inspector confirmed that the Plan has been prepared in accordance with all other legal and procedural requirements and concluded that: *"In conclusion, subject to the main modifications, the DPD provides an appropriate overarching strategy in response to Warwick's declared climate emergency that is positively prepared, justified, effective and consistent with national policy"*.

1.33 **Decision whether to adopt the Plan**

1.34 In light of the Inspector's report, the Council now has to decide whether it wishes to formally adopt the plan as local planning policy forming part of the Development Plan for the District. In doing so, the Council can only adopt the plan with the changes, the agreed Main Modifications, recommended by the Inspector along with the agreed Additional Modifications.

1.35 In the time between publication of the Inspector's Report and adoption of the DPD, consideration should be given to the weight that can be given to the policies of the Plan, prior to a formal decision whether to adopt the DPD is taken.

1.36 Paragraph 48 of the National Planning Policy Framework (NPPF) states that: *Local planning authorities may give weight to relevant policies in emerging plans according to:*

- a) *The stage of preparation of the emerging plan (the more advanced its preparation, the greater weight that may be given);*

b) *The extent to which there are unresolved objections to relevant policies (the less significant the unresolved objections, the greater weight that may be given); and*

c) *The degree of consistency of the relevant policies in the emerging plan to this Framework (the NPPF) (the closer the policies in the emerging plan to the policies in the Framework, the greater the weight that may be given)*

1.37 As the DPD has been through public consultation and examination and the Inspector's Report has been published and he has found the DPD to be sound and consistent with national policy, it is considered that it should be afforded significant weight in the determination of planning applications. Indeed, significant weight has already been given to the DPD in relation to a number of planning applications determined since receipt of the Inspectors report, including for major housing developments.

1.38 **Effective implementation of the DPD**

1.39 ***Associated NZC Supplementary Planning Document***

1.40 At its meeting on 5th July 2023, Cabinet noted that a Supplementary Planning Document (SPD) was to be produced, as set out in the Council's Local Development Scheme, to assist with the smooth implementation of the DPD and gave delegated authority to the Head of Place, Arts and Economy and the Portfolio Holders for Climate Change and Place to agree on a version of the Supplementary Planning Document that the Council will consult upon and agree the dates for that consultation; and that Cabinet notes that the SPD will ultimately come before them for their consideration as to whether to adopt it.

1.41 An SPD has subsequently been produced by officers and their consultants and a public consultation on the SPD commenced on 18th October 2023 and ran for 6 weeks until 29th November 2023.

1.42 A total of 26 responses were received from a range of stakeholders including local authorities, town and parish councils, housebuilders and other planning agents, individuals and statutory bodies. The responses were largely positive and various suggestions were made to improve the document.

1.43 In light of the representations received through the consultation, officers have made a number of changes to the SPD as set out in Appendix 10 – Schedule of Proposed Modifications to the Published Warwick Net Zero Carbon SPD. These amendments have been made to the SPD with a final version included as Appendix 8.

1.44 Recommendation 4 of this report, seeks Cabinet approval to adopt the SPD. As the parent policy document for the SPD is the DPD, the SPD can only be formally adopted after (or at the same time) as the DPD.

1.45 In the interim, although not benefitting from the weight of being an adopted policy document, the SPD can still be used as a guide for applicants and decision makers as to what will need to be produced and submitted to address the policy requirements.

1.46 ***Resourcing the implementation of the DPD***

1.47 A new permanent post of 'Sustainability and Energy Officer' has been factored into the Council's Medium-Term Financial Strategy (MTFS) and has been created to provide the technical expertise required to assess energy statements

and other technical information submitted as part of planning applications as a direct result of the DPD policies.

- 1.48 The Council has advertised this position in March-April 2024 and as there were no suitable candidates, the post will be re-advertised in the near future.
- 1.49 £30,000 has also been agreed from the Service Transformation Reserve for consultancy and training support in the current financial year until a suitable person is appointed.
- 1.50 Three successful tailored training events have been held separately with officers and members and a further session is being arranged for planning agents. The aim of the sessions is to inform and upskill Development Management and Policy officers but also to provide training for Councillors and planning agents/applicants to aid understanding of the requirements of the DPD and highlighting the support that the SPD offers.
- 1.51 Arrangements relating to the local Carbon Offsetting fund will be finalised with Warwickshire County Council over the coming weeks, although it is recognized that offsetting is a last resort option in the DPD.
- 1.52 For the avoidance of doubt and to manage expectations, the DPD will only be able to be applied to new planning applications – either full or outline applications (and subsequent reserved matters that benefit from an outline permission after the DPD is adopted/afforded significant weight). Any developments that already have the benefit of outline permission at the time of the publication of the Inspector’s report and subsequently have reserved matters approvals cannot be required to comply with the new policies.

2 Alternative Options

- 2.1 Cabinet could recommend to Council not to adopt the DPD. However, the Council’s choices are binary: to adopt the DPD or abandon it. The latter would mean that the Council will miss a clear opportunity to make a huge stride in meeting its ambitions set out in the Climate Change Action Programme and will result in greater carbon emissions and more buildings that will need costly and disruptive retrofit in future to achieve net zero carbon buildings. It would also mean that significant resources will have been wasted on the development of this net zero planning policy document.
- 2.2 Cabinet could choose not to adopt the SPD or adopt an amended version to that in Appendix 8. However, officers consider that it is important to adopt the SPD at the same time as the DPD to ensure that the detailed guidance can be relied upon and given full planning weight. Furthermore, it is considered that the modifications to the SPD following its consultation are proportionate and appropriate in light of the representations received.

3 Legal Implications

- 3.1 The DPD once adopted will form part of the Development Plan for the area and the Inspector’s report is binding on the local planning authority in that the Council cannot adopt the DPD except in accordance with the recommendations in the Inspector’s Report.
- 3.2 In relation to applications that already have a resolution to grant (e.g. have been considered by Planning Committee) but have not yet been determined, (e.g. because they are awaiting the completion of a s106 agreement), officers need to consider whether the DPD requirements are relevant and, if so,

consider whether the DPD requirements have already been taken into account. If the DPD is relevant and has not been taken into account, it will be necessary for those applications go back to Planning Committee to seek an amendment to the resolutions to ensure the DPD is addressed. This is because all material considerations need to be considered in making a decision on planning applications and (when adopted) planning applications must be determined in accordance with the development plan, unless material considerations indicate otherwise. There is of course a possibility that some applicants may be aggrieved by this, but given then legal status of the DPD, there would be risks of a legal challenge if this was not done as the Council would have failed to have regard to a material consideration.

4 Financial Implications

- 4.1 Previous reports that have come to Cabinet have sought to set aside money to cover costs associated with the production of the DPD.
- 4.2 Past reports have also highlighted that additional technical expertise may be required to aid the implementation of the DPD and assess the plethora of technical information that will be submitted as part of planning applications as a result of the DPD policies. As highlighted in Paragraph 1.46, a new permanent post has been created for somebody to provide this technical expertise. This has been factored into the Medium-Term Financial Strategy (MTFS).
- 4.3 £30,000 has also been agreed from the Service Transformation Reserve for consultancy and training support in the current financial year until a suitable person is appointed.

5 Corporate Strategy

- 5.1 Warwick District Council has adopted a Corporate Strategy which sets three strategic aims for the organisation.
- 5.2 Delivering valued, sustainable services – The application of the DPD policies will result in fewer buildings that will require future expensive retrofit and thus will reduce costs to the council and residents in the long term.
- 5.3 Low cost, low carbon energy across the district - The adoption of the DPD and associated SPD will result in a demonstrable improvement in the energy efficiency and quality of homes and other buildings in the district. Homes built to these standards should also reduce fuel costs for occupants thus bringing benefits to livelihoods. The DPD policies will result in a reduction in emissions thus having a positive environmental impact by minimising any adverse impact that communities in Warwick District are having upon the local and global climate.
- 5.4 Creating vibrant, safe and healthy communities of the future – The DPD policies will require new buildings to be constructed to a higher standard and will reduce energy costs for residents and businesses thus helping both thrive.

6 Environmental/Climate Change Implications

- 6.1 The NZC DPD is a response to the climate emergency. The DPD is aligned with the strategic aim of the Corporate Strategy 'Low cost, low carbon energy across the district'. The Council's Climate Change Action Programme (November 2021), committed to progressing the DPD. Planning policy has a critical role in delivering the Council's aims on climate change and reducing carbon emissions.

7 Analysis of the effects on Equality

- 7.1 Consultations have been conducted in line with the Council's adopted Statement of Community Involvement.
- 7.2 The DPD policies will improve the fabric of new buildings and thus their energy efficiency, ultimately reducing bills associated with energy usage. This will be of benefit to all residents within the district that ultimately live in a property that is approved subject to the policies in the DPD.
- 7.3 There are no further equality impacts associated with the proposals in this report.

8 Data Protection

- 8.1 There are no Data Protection implications associated with the recommendations in this report.

9 Health and Wellbeing

- 9.1 The proposed DPD policies, if adopted, will improve energy efficiency of homes and businesses and it is expected that they will help to minimise energy usage. This will be of significant benefit to residents and businesses as it will reduce costs and reduce the number of people suffering from fuel poverty. This has the potential to have a significant positive impact upon health and wellbeing of residents. The DPD policies also ultimately mean Warwick District Council is making great strides in reducing its impact upon global climate change.

10 Risk Assessment

- 10.1 Failure to develop and implement policies requiring new developments to be net zero carbon in operation (for the purposes of this DPD this relates to regulated operational energy resulting from fixed building services and fittings) will undermine the council's climate emergency declaration and furthermore will mean the council's stated ambitions on climate change would be undeliverable, in the absence of national policy being implemented.
- 10.2 Alternative options (see Section 2) identify risks associated with taking an alternative approach to the recommendations as set out in this report.

11 Consultation

- 11.1 The DPD has been subject to Regulation 18 and 19 public consultations, an Examination in Public and further Main Modifications and NPPF/Written Ministerial Statement public consultations. The SPD has also been subject to a public consultation.
- 11.2 There has been regular engagement with the relevant Portfolio Holder during the preparation of the DPD and following submission of the document for Examination. A cross-party Working Group for the DPD also met on a number of occasions at earlier stages of the production of the DPD.

Appendices to this report:

- Appendix 1 – Inspector's Report on the Examination of the Warwick Net Zero Carbon Development Plan Document

- Appendix 2 – Net Zero Carbon Development Plan Document (updated to reflect Main and Additional Modifications)
- Appendix 3 – Main Modifications
- Appendix 4 – Additional Modifications
- Appendix 5 – Main Modifications Consultation Report, July 2023
- Appendix 6 – Draft DPD Adoption Statement
- Appendix 7 – Draft Sustainability Appraisal Adoption Statement
- Appendix 8 – Net Zero Carbon Supplementary Planning Document (updated following public consultation)
- Appendix 9 – Consultation Statement on Net Zero Carbon Supplementary Planning Document
- Appendix 10 - Schedule of Proposed Modifications to the Published Warwick Net Zero Carbon Supplementary Planning Document.

Supporting documents:

Report to Cabinet and Appendices, 5th July 2023

Report to Cabinet and Appendices, 10th August 2022

Report to Cabinet and Appendices, 10th February 2022

Report to Cabinet and Appendices, 8th July 2021

Local Development Scheme, March 2024

Link to Net Zero Carbon DPD Examination webpages:

https://www.warwickdc.gov.uk/info/20799/development_plan_documents/1713/net_zero_carbon_development_plan_document

Appendix 1: Inspector's Report on the Examination of the Warwick Net Zero Carbon

Report to Warwick District Council

by Andrew McCormack BSc (Hons) MRTPI

an Inspector appointed by the Secretary of State

Date: 9 April 2024

Planning and Compulsory Purchase Act 2004

(as amended)

Section 20

Report on the Examination of the Warwick Net Zero Carbon Development Plan Document

The Plan was submitted for examination on 17 October 2022

The examination hearings were held on 7, 8 and 9 March 2023

File Ref: PINS/T3725/429/8

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Abbreviations used in this report

AA	Appropriate Assessment
AONB	Area of Outstanding Natural Beauty
BREEAM	Building Research Establishment Environmental Assessment Methodology
CCAP	Climate Change Action Plan
CEAP	Climate Emergency Action Programme
CIL	Community Infrastructure Levy
DPD	Development Plan Document
DtC	Duty to Cooperate
EIA	Environmental Impact Assessment
FBS	Future Buildings Standard
FHS	Future Homes Standard
HRA	Habitat Regulations Assessment
LDS	Local Development Scheme
NPPF	National Planning Policy Framework
NPPG	National Planning Practice Guidance
PSED	Public Sector Equality Duty
RICS	Royal Institute of Chartered Surveyors
SA	Sustainability Appraisal
SAP	Standard Assessment Procedure
SCI	Statement of Community Involvement
SPD	Supplementary Planning Document
SWLP	South Warwickshire Local Plan
TER	Target Emissions Rate
TREE	Target Fabric Energy Efficiency
WCC	Warwickshire County Council
WESTP	Warwickshire Ecosystem Services Trading Protocol
WMS	Written Ministerial Statement

Non-Technical Summary

This report concludes that the Warwick District Council Net Zero Carbon Development Plan Document [the DPD] provides an appropriate basis for the planning of the district with regard to attaining net zero carbon development and minimising carbon emissions in new and existing development, provided that a number of main modifications [MMs] are made to it. The Council has specifically requested that I recommend any MMs necessary to enable the DPD to be adopted.

Following the hearings, the Council prepared a schedule of the proposed modifications and, where necessary, carried out a sustainability appraisal and habitats regulations assessment of them. The MMs were subject to public consultation over a six-week period. I have recommended their inclusion in the Plan after consideration of the representations made in response to consultation on them.

The Main Modifications can be summarised as follows:

- Modifications in the supporting text and justification for each of the DPD policies to clarify how the policies relate to, support, expand upon but do not supersede the relevant Local Plan policies.
- Modifications to Policy NZC2(B) and to supporting text throughout the DPD to provide clarification that the DPD relates to regulated operational energy and associated carbon emissions rather than unregulated energy.
- Modifications to the explanatory text of the DPD to signpost where future guidance on the scope and content of the energy statement can be found.
- Modifications to the explanatory text of the DPD to clarify how the Carbon Offset Fund will be separate from other funding mechanisms such as CIL, how it will be implemented and monitored and how schemes to be funded by the Carbon Offset Fund are to be identified; and
- A number of other modifications to ensure that the plan is positively prepared, justified, effective and consistent with national policy.

The Council has produced a Schedule of Additional Modifications that includes further minor changes that the Council wishes to make to the DPD which do not relate to its soundness or affect my findings. It is not my role to determine or be concerned with these Additional Modifications in my examination of the DPD relating to its soundness. As such, I make no further comment on them other than to provide reference to the Schedule of Additional Modifications set out within document EXAM17B of the Examination Document Library.

Introduction

1. This report contains my assessment of the Warwick District Council Net Zero Carbon Development Plan Document in terms of Section 20(5) of the Planning and Compulsory Purchase Act 2004 (as amended) (the 2004 Act). It considers first whether the Plan's preparation has complied with the duty to co-operate. It then considers whether the Plan is compliant with the legal requirements and whether it is sound. Paragraph 35 of the National Planning Policy Framework 2021 (the NPPF) makes it clear that in order to be sound, a Local Plan should be positively prepared, justified, effective and consistent with national policy.
2. The starting point for the examination is the assumption that the local planning authority has submitted what it considers to be a sound plan. The Warwick District Council Net Zero Carbon Development Plan Document Submission Version - August 2022 [SUB1] (the DPD), submitted in October 2022, is the basis for my examination. It is the same document as was published for consultation in April 2022.

Main Modifications

3. In accordance with section 20(7C) of the 2004 Act, the Council requested that I should recommend any main modifications (MM) to the DPD necessary to rectify matters that make the DPD unsound and/or not legally compliant and thus incapable of being adopted. My report explains why the recommended MMs are necessary. The MMs are referenced in bold in the report in the form **MM01**, **MM02** etc, and are set out in full in the Appendix to this report.
4. Following the examination hearings, the Council prepared a schedule of proposed MMs and, where necessary, carried out a sustainability appraisal and habitats regulations assessment of them. The MM schedule was subject to public consultation for six weeks between 5 June and 17 July 2023. I have taken account of the responses in reaching my conclusions in this report.

Policies Map

5. The Council must maintain an adopted policies map which illustrates geographically the application of the policies in the adopted development plan. When submitting a local plan for examination, the Council is required to provide a submission policies map showing the changes to the adopted policies map that would result from the proposals in the submitted local plan. However, in this case, the submitted DPD and its policies involve no changes to the existing policies map for the adopted local plan. As such, there are no changes to the map which arise or result from the policies contained within the DPD.

Context of the Plan

Written Ministerial Statement – 13 December 2023

6. On 13 December 2023 the Government made a written ministerial statement (WMS) which set out the Government's expectations in respect of planning policies that deal with local energy efficiency standards for buildings. This WMS supersedes the section of the 25 March 2015 Ministerial Statement entitled '*Housing standards: streamlining the system*' sub-paragraph 'Plan-making' in respect of energy efficiency requirements and standards only. The latest WMS states that the Planning Practice Guidance (PPG) will shortly be updated to align with the WMS, although this is yet to be done. Therefore, where local energy efficiency standards for buildings are a consideration in local plan examinations, it is clear the latest WMS should be applied, recognising the WMS represents the Government's most recent expression of national policy.
7. Comments on the latest WMS in the context of this examination, the DPD and its policies were invited from those actively participating in the examination. Responses to this have been considered in my assessment of the soundness of the plan.

Revised National Planning Policy Framework – 19 December 2023

8. A revision to the NPPF was published on 19 December 2023. It includes a transitional arrangement in paragraph 230 confirming that, for the purposes of examining the DPD, the policies in the latest revised NPPF do not apply and the DPD should be examined under the previous version of the NPPF (July 2021). Having taken account of this and responses on this matter from those substantively engaged in this examination, I am satisfied that this is the case and have completed this examination accordingly. Therefore, unless otherwise stated, all references to the NPPF in this decision letter relate to the July 2021 NPPF. Furthermore, the references to the NPPF identified within the DPD have been clearly referenced in relation to the July 2021 NPPF for clarity and the avoidance of doubt. As such, there are no modifications to the DPD required in this respect.

Warwick District and the Local Development Plan

9. Warwick District is located between the city of Coventry to the north, rural parts of Solihull Metropolitan Borough to the north and west, Stratford-on-Avon District to the south and Rugby Borough to the east.
10. The Council declared a climate emergency in 2019. Following this, the Council adopted a Climate Emergency Action Programme (CEAP) in early 2020 which recognises the importance of the planning system in tackling climate change. As such, a key part of the CEAP is the proposal to develop and implement policies that will deliver improved net zero carbon building standards.
11. The DPD sets out policies that aim to ensure new development reduces carbon emissions as much as possible towards achieving national and local carbon reduction targets, including the Council's net zero carbon target by 2030. The DPD

aims to ensure that all new development should be net zero carbon in operation. For the purposes of this DPD, net zero carbon relates to regulated carbon energy which results from fixed building services and fittings.

12. The DPD is a partial update of the adopted Warwick District Local Plan [SD1] (the Local Plan) and as such it has a limited and specific scope – to respond to the Council's declared climate emergency of 2019 and reduce carbon emissions from new development. The DPD does not change the spatial priorities of the adopted Local Plan, its strategy or strategic housing and growth requirements.
13. The Council has commenced a full review of the adopted Local Plan through the emerging South Warwickshire Local Plan (SWLP) which it is undertaking jointly with Stratford-on-Avon District Council. It is envisaged that this new plan will not only supersede the policies in the adopted Local Plan but also build upon the policies identified within the DPD. As a full review, this new plan will take time to prepare and adopt and it is identified for adoption by the end of 2027 in the Council's latest Local Development Scheme (LDS), as updated on 6 March 2024.

Public Sector Equality Duty

14. Throughout the examination, I have had due regard to the equality impacts of the DPD in accordance with the Public Sector Equality Duty (PSED), contained in Section 149 of the Equality Act 2010 (the 2010 Act). This, amongst other matters, sets out the need to advance equality of opportunity and foster good relations between people who share a protected characteristic and those who do not.
15. I have considered the Council's Equality Impact Assessment (EIA) for the DPD contained at Appendix II of the Sustainability Appraisal Report dated March 2022 [SUB 3]. As such, I note the following assessment of the DPD in terms of the PSED. The DPD will enhance the local environment, reducing risks associated with the effects of climate change and therefore result in improved conditions for health and wellbeing for all people. Further positive effects of the DPD may be indicated for those within the Age and Disability protected characteristic groups, as defined at Section 149(7) of the 2010 Act, since these include people with vulnerabilities. The potential for the DPD impacting the viability and delivery of development in some circumstances has been mitigated within the policies. As a result, negative effects from not meeting housing needs, along with associated potential negative effects for all groups and especially the Age and Disability groups, are therefore unlikely.
16. The EIA indicates that the DPD is unlikely to result in negative equality impacts that would require justification or mitigation and that no options have been missed to promote equality of opportunity. With no further details needing to be provided of action that could be taken to remedy this, I am satisfied that due regard has been had to the PSED and that it has been met.

Assessment of Duty to Co-operate

17. Section 20(5)(c) of the 2004 Act requires that I consider whether the Council complied with any duty imposed on it by section 33A in respect of the Plan's preparation.
18. The Council's approach to the Duty to Cooperate (DtC) is evident from its submitted Consultation Statement documentation [SUB7, SUB8 and SUB9] as well as the evidence contained in the Council's hearing statements. These documents set out the various steps and activities that the Council has undertaken to engage and cooperate with statutory organisations, neighbouring authorities, prescribed bodies and other public organisations at key stages in the preparation of the DPD.
19. The evidence explains in detail how the Council has worked with these bodies. This includes liaising and engaging regularly on the DPD with neighbouring authorities monthly through the Coventry, Solihull and Warwickshire Association of Planning Officers, a group including all seven local authorities in the stated area.
20. At the Regulation 18 and 19 consultation stages, the Council also consulted the range of public bodies referred to in Part 2 of the Town and Country Planning (Local Planning) (England) Regulations 2012 (the 2012 Regulations) as identified in Paragraph 6.5 of the Council's Hearing Statement on Matter 1. There were no representations received from these bodies at either consultation stage and given the nature and scope of the DPD's policies, the Council reasonably considered it appropriate not to consult with the other prescribed bodies.
21. The nature of the policies in the DPD relate to building standards within Warwick District and are considered to have a neutral or even a positive impact upon neighbouring authority areas as they will assist in mitigating the impacts of climate change. The Council has not sought to produce a Statement of Common Ground with neighbouring authorities on matters relating to the DPD as whilst the Council appreciates that climate change is a matter that does not stop at local authority boundaries, it is considered that the DPD policies do not give rise to substantive strategic matters. Any cross-boundary implications resulting from the DPD's policies, such as NZC2(C): Carbon Offsetting, have been addressed collectively through joint-working under the Warwickshire Ecosystem Services Trading Protocol (WESTP).
22. I conclude that the DtC imposed by Section 33A of the 2004 Act is engaged and has been met. Strategic issues and matters within the DPD are limited. However, given the global nature of climate change and that the implications of matters related to minimising carbon emissions do not recognise local authority boundaries, I am satisfied that where necessary the Council has engaged constructively, actively and on an on-going basis with its neighbouring authorities and appropriate relevant agencies in the preparation of the DPD.

Assessment of Other Aspects of Legal Compliance

23. The DPD has been prepared in accordance with the Council's LDS [EXAM4] which was published in December 2022. It is acknowledged that since the examination hearings, the LDS has recently been updated in March 2024. I confirm that the DPD was prepared in accordance with the previous iteration of the LDS in place at that time and also accords with the latest version of the LDS.
24. The Council's Statement of Community Involvement (SCI) [SD3] was updated and adopted in April 2020. The SCI was used to undertake consultation at each stage of the preparation of the DPD. I note that the Council has produced a recent update to its SCI following consultation in the Summer of 2023. There are no substantive changes to the SCI resulting from this update. The Council has produced a Statement of Consultation [SUB9 – Appendix 2] which sets out the summary of consultation methods and relevant bodies who were consulted under Regulation 18 and 19 consultation stages.
25. Overall, I find that the Council has followed the adopted SCI in the preparation of the DPD. I am satisfied that consultation on the DPD and on the proposed MMs was carried out in compliance with the Council's SCI and the 2012 Regulations.
26. Section 19(5) of the 2004 Act requires local authorities to carry out a SA of the submitted plan. The Council carried out the SA of the emerging DPD and prepared and published a report at the Regulation 18 consultation stage which set out the findings of the SA – its Sustainability Appraisal, Strategic Environmental Appraisal, Habitats Regulations Assessment (SA/SEA/HRA) Report: September 2021 [SD11]. The stages taken in the SA process were also set out. The SA was an iterative process as preparation of the DPD progressed. The Council produced a further SA report [SUB3] which tested the draft policies in the DPD. This was published with the DPD and other submission documents under Regulation 19. The SA was updated again in May 2023 to assess the impact of the proposed MMs and this report has been submitted as an Addendum Note to the SA report [EXAM20].
27. The SA framework appraised the policies of the DPD against a set of defined objectives which have been adequately justified. It has also suitably addressed reasonable alternatives to the Council's proposed approach. Overall, the assessment has found that the implementation of the DPD, with proposed MMs, and its stricter policy requirements for carbon emissions will not result in any significant negative sustainability effects.
28. I find that the SA has been undertaken in a proportionate and equitable way. It has considered reasonable alternatives appropriately, setting out why alternatives have been rejected and has followed the relevant Regulations and is therefore adequate. As a result, I am satisfied that the approach to the SA is robust and that the necessary procedural and legal requirements have been met.
29. The Habitats Regulations Assessment (HRA) was undertaken at the same time as the SA and the summary HRA findings have been incorporated into the SA Report

[SUB3]. The HRA has been undertaken in accordance with Government appropriate assessment guidance and to meet with the requirements of the HRA Regulations. The SA Report [SUB3] sets out that the HRA has been prepared consistent with relevant regulations and guidance.

30. It is noted that the Council undertook a pragmatic and proportionate approach to HRA screening / appropriate assessment (AA) to demonstrate that the HRA had been considered in line with the recent changes to Government guidance. Accordingly, the HRA Screening Report – May 2021 was consulted upon with the environment bodies, Natural England (NE) and the Environment Agency (EA). A response was received from NE [SD12] agreeing with the Council's proposed approach to the HRA/AA.
31. An addendum to the HRA [EXAM20] was produced in May 2023 incorporated with an SA addendum to assess the impact of the proposed MMs to the DPD. The HRA and its addenda conclude that the DPD is unlikely to lead to any significant adverse effects (either alone or in combination) on the national site network. Having noted and considered the HRA work that has been done, the representations made regarding it and Natural England's overall support of the HRA, I find this to be a reasonable and robust conclusion.
32. The development plan, taken as a whole, includes three strategic priorities for the development and use of land in the local planning authority's area. The adopted Local Plan identifies these priorities as: a) supporting prosperity; b) providing the homes the district needs; and c) supporting sustainable communities. Priority c) refers to various considerations for the delivery of sustainable communities, including the design and layout of new development, regeneration and enhancement of existing environments and protecting the natural and built environment. The DPD contains policies that are complementary to these strategic priorities.
33. The Council's declared climate emergency reflects an urgent need to meet the challenges of climate change. The development plan, taken as a whole, includes many policies designed to secure that the development and use of land in the district contributes to the mitigation of, and adaptation to, climate change. In the adopted Local Plan this includes Strategic Policy DS3 (Supporting Sustainable Communities) which refers to delivering a low carbon economy and lifestyles and environmental sustainability. In the DPD, all policies also seek to enable Warwick to be as close as possible to net zero by 2030.
34. The Local Plan covers the wider matters of sustainable development. Section 12 of the DPD sets out policies in the wider development plan relating to energy efficiency, renewable energy generation, climate change resilience and sustainable construction and which are supported and expanded by the adoption of the DPD. I am satisfied the development plan, incorporating the DPD, includes policies designed to manage development proposals and the use of land within Warwick District which contribute to the mitigation of, and adaptation to, climate change.

35. The DPD complies with all other relevant legal requirements, including the 2004 Act (as amended), the 2012 Regulations. As a result, I conclude that the DPD achieves this statutory objective.

Assessment of Soundness

Main Issues

36. Taking account of all the representations, the written evidence and the discussions that took place at the examination hearings, I have identified six main issues upon which the soundness of this DPD depends. This report deals with these main issues. It does not respond to every point or issue raised by representors. Nor does it refer to every policy criterion in the DPD.

Issue 1 – Does the DPD provide an appropriate overarching strategy in the light of Warwick's declared climate emergency that is positively prepared, justified, effective and consistent with national policy?

37. Essentially, the DPD contains policies which have been identified by the Council to tackle the declared climate emergency of 2019. The background and local context of the DPD is clearly set out within Section 1 of the document [SUB1]. The Council's commitment through the declared climate emergency is to facilitate decarbonisation with the aim to get total carbon emissions within Warwick District to be as close to zero as possible by 2030.
38. The WMS (13 December 2023) states that any planning policies that propose local energy efficiency standards for buildings that go beyond current or planned building regulations should be rejected at examination if they do not have a well-reasoned and robustly costed rationale that ensures development remains viable and the impact on housing supply and affordability is considered in accordance with the NPPF. Furthermore, any additional requirement that the proposed policies stipulate is to be expressed as a percentage uplift of a dwellings' Target Emissions Rate (TER), calculated using a specified version of the Standard Assessment Procedure (SAP).
39. It is acknowledged that the uncommenced amendments¹ to the Planning and Energy Act 2008 result in the continuation to permit local authorities to include policies imposing reasonable standards of energy efficiency that are above those set down in building regulations. This is confirmed in the fourth paragraph of the WMS. The WMS also confirms a further change to energy efficiency building regulations is planned for 2025. This is anticipated to relate to the Future Homes Standard (FHS). The FHS has informed the development of the DPD policies, most notably Policy NZC1. From what I have seen, the % carbon reductions for new homes under that policy reflect those within the FHS and therefore align with planned building regulations.

¹ Written Ministerial Statement – 'Housing standards: streamlining the system' 25 March 2015 (HC Deb. 25 March 2015, vol 584, cols 131-138WS)

40. The Council has highlighted that whilst the Government does not expect plan makers to set local energy efficiency standards that go beyond current or planned building regulations, the WMS does not restrict plan makers from setting such standards, as this continues to be permitted by the Planning and Energy Act 2008. This is endorsed in the recent 'Salt Cross' High Court judgement.² Accordingly, I find this to be a reasonable and justified approach for the Council to take.
41. In the context of the WMS and based on the evidence before me, I find that Policy NZC1 is a justified response to Warwick's declared climate emergency. It seeks to deliver improved low-carbon building standards and an offsetting mechanism to ensure new development supports the target of getting the district as close to net zero as possible by 2030.
42. The NZC DPD is clearly supported by a robust costing and viability assessment that confirms that most schemes across Warwick District generate viable outcomes alongside adopted Local Plan policies, including in relation to affordable housing. It is also noted that Policy NZC1 expresses the % uplift as a % reduction in carbon emission which is equivalent to a % uplift of a dwellings' TER, as identified in the WMS. For new dwellings, the policy requires an on-site minimum of 63% reduction in carbon emissions compared to the baseline emission rate (equivalent to TER) set by building regulations Part L 2021 (SAP 10.2). This also aligns with planned improvements to building regulations through the FHS which is anticipated to come into force in 2025. Therefore, as Policy NZC1 aligns with planned building regulations, it also complies with the criteria set out in the WMS for local energy efficiency standards for buildings.
43. The Council's adopted CEAP identified possible actions which included ensuring that the planning system, led by the Local Plan, set development and land use standards with the aim of reducing carbon emissions and building sustainable communities. The CEAP also indicated the need to develop and implement policies that will deliver improved net zero carbon building standards, subject to national policy, and identified the need to ensure that carbon reduction features and BREEAM standards are included in major development schemes.
44. The Warwick District Council Zero Carbon DPD Energy and Sustainability Policy Review [SUB5] provides further justification for the DPD and its approach. It indicates that building regulations will not deliver sufficient carbon reductions to achieve national carbon reduction targets, such as legislated carbon budgets under the Climate Change Act 2008 or the local carbon climate commitments that the Council has set out in the Warwick Climate Change Action Plan (CCAP).
45. Considering the above, the Council has brought forward the DPD to meet these aims and objectives ahead of a full review of the Local Plan as an early element enabling Warwick District to be as close as possible to net zero by 2030.

² *R (on the application of Rights Community Action Limited) v Secretary of State for Levelling Up, Housing and Communities, West Oxfordshire District Council and Grosvenor Developments Limited* [2024] EWHC 359 (Admin) Case No:AC-2023-LON-001146 CO/1308/2023 (20 February 2024)

46. The DPD is an appropriate and pragmatic response to the declared climate emergency as it delivers improved low carbon building standards and an off-setting mechanism to ensure new development supports the Council's 2030 target. The aims and objectives, set out in Section 4.1 of the DPD are soundly based and are an appropriate response to the Council's CCAP and national carbon targets.
47. It is noted that the policies of the DPD do not deliver true net zero carbon development. For the purposes of the DPD, 'net zero carbon in operation' relates to regulated energy and excludes unregulated energy. Nonetheless, the aims and objectives of the DPD are intended to provide an appropriate response to the climate emergency, subject to the modifications that have been identified in this report. For soundness, I have identified main modifications [**MM08**, **MM09**, **MM10**, **MM12**, **MM13** and **MM14**] to the DPD. These modifications, as set out in the Schedule attached to this report, clarify throughout the document the intention of the DPD in relation to regulated and unregulated operational carbon. Consequently, the modifications are necessary to provide clarity and to make the DPD justified and effective.
48. It is acknowledged there is some repetition of wording as set out in modifications **MM08** and **MM09**. However, given the differing sections of the DPD within which they appear, it is beneficial to clearly emphasise the context, aims and objectives of the DPD in these separate places within the document.
49. Policy NZC1 is structured around the energy hierarchy which is summarised at Figure 1 in Section 5 of the DPD. This recognises that improving energy efficiency and minimising energy demand is the most cost-effective way to achieving a zero-carbon energy system. As such, this represents the starting point to reducing carbon emissions. The justification for the approach set out in Policy NZC1 is provided in the Energy and Sustainability Policy Review [SUB5] which notes that the approach taken is one also adopted by a significant number of local authorities.
50. The energy hierarchy is a recognised concept in tackling carbon emission reduction and is therefore a reasonable approach to reducing such emissions from new development through a staged process. The energy hierarchy is translated into policies NZC2(A) on fabric efficiency; NZC2(B) on zero or low carbon energy sources and NZC2(C) regarding off-setting residual emissions.
51. The matter of the Council introducing local carbon reduction targets ahead of national Government-led targets, such as the Future Homes Standard in 2025, has been considered. As the Council has noted, neither local or national carbon reduction targets will be achieved through the timescale on implementation of Government-led standards – the building regulations and Future Homes Standard (FHS). To meet local and national targets, the Council considered it necessary to introduce carbon reduction targets ahead of the Government-led targets. This is notwithstanding that the implementation timescale of the Government-led FHS is yet to be confirmed, although expected in 2025.

52. The Council identified that a reduction in carbon emissions expressed against building regulations was most consistent with national policy. Furthermore, it is noted that this aligns with similar policies adopted in other local authorities as set out in SUB5. This approach also accords with the powers granted under the Planning and Energy Act 2008 allowing local authorities to set energy efficiency targets above national standards and a proportion of energy to be renewable. Moreover, it is noted that this approach has been justified and found to be sound through other recent examinations, as identified in EXAM6³ and also, notably, in the recent Salt Cross judgement.
53. The requirement under Policy NZC1 of the DPD to set a minimum 63% reduction of carbon emissions for new dwellings based on building regulations Part L 2021 aligns with the FHS which is expected to come into effect in 2025. It is also noted that the application of the FHS will deliver 'zero-carbon-ready' homes in relation to regulated operational energy. This is consistent with the aims of the DPD to ensure that the cost of retrofitting buildings does not increase.
54. With regard to non-residential development, Policy NZC1 sets a minimum 35% reduction in carbon emissions compared to building regulations 2013. Although the residential target was set to reflect the FHS, it is accepted that this could not be done for non-residential targets due to the Government not having stated the % regulated carbon reduction that will be delivered by the Future Buildings Standard (FBS). Therefore, the non-residential target was selected by the Council to reflect a reasonably ambitious improvement that has been included in recently adopted plans in London and Milton Keynes [SUB5]. The Council considered that given the evidence that had been compiled in those areas for several years, the standard set was technically feasible.
55. Although the Warwick District market is acknowledged as different to the other areas identified, viability has been accounted for in the assessment set out within the Viability Study [SUB6]. From that assessment, it has been concluded that the actual physical interventions necessary in the buildings would be similar. The 35% carbon reduction, compared to building regulations 2013, remains an improvement on current building regulations. The Government has stated that the current non-residential standard represents a 27% reduction on that of the 2013 building regulations.
56. I am satisfied that the requirements under Policy NZC1 of the DPD for % carbon reductions for residential and non-residential buildings, and therefore the overarching strategy, are justified and effective.
57. The cost uplift associated with the DPD policies, as identified through the Council's viability evidence, equates to 3% of construction costs on residential development and 6% of construction costs on non-residential development. This, it is identified, should be readily absorbed in most cases. The Viability Study [SUB6] indicates that, for example, most residential schemes across Warwick District would generate

³ [EXAM6] - Bath & North East Somerset Partial Local Plan – Inspectors Report – 13 December 2022

viable outcomes alongside the requirements in adopted Local Plan Policy H2 for 40% affordable housing.

58. The cost uplift of 3% has been based on existing evidence⁴ on the delivery of homes which achieve net zero carbon emissions by the definition and requirements set out in the DPD. The data sources are as referenced and set out within the Energy and Sustainability Policy Review [SUB5, p.21].
59. The Policy Review concludes that the cost uplift used data from the FHS Impact Assessment [EXAM8] on building fabric, the Etude and Currie and Brown Energy Review [EXAM9] data regarding heat pumps and BioRegional, using BEIS per-tonne carbon valuation and grid carbon projections, in combination with MHCLG data on carbon emissions of recent new homes in Warwick. This assessment translated to a 2.6-2.7% uplift. This was reasonably rounded up to 3% to allow a margin of error for the purposes of the viability study. In applying a % uplift on the base build costs, the Council reasonably considered that to be the most robust method of including the cost of achieving net zero carbon buildings rather than itemised costs of improved fabric efficiency, inclusion of a heat pump and offsetting the remaining carbon.
60. A full explanation of the 3% cost assumption has been provided in the submitted Regulation 22 Consultation Statement [SUB7]. It is noted that the 3% uplift is inclusive of the carbon offset calculation. In addition, the Council produced a further Viability Addendum Note [EXAM11] seeking to further explain the 3% residential and 6% non-residential cost uplifts and I have had regard to all of this in reaching my conclusion on the matter.
61. A cost uplift of 3% most closely reflects the policy approach that the Council is proposing, including the energy efficiency requirements of the FHS, a heat pump and a dynamic offset solution. The evidence referred to in EXAM11 by Currie and Brown in that assessment concludes that a % uplift of between 5-7% for net zero regulated emissions in non-residential buildings, excluding the BREEAM Excellent uplift is appropriate. The 6% uplift figure for non-residential development set out in the BNP Paribas Viability Assessment [SUB6] reasonably represents the mid-point in that assessment. As a result, with all of the evidence before me having been carefully considered, I find the approach chosen by the Council in relation to the cost uplift calculations to be reasonable and based on robust and readily available evidence. I am therefore satisfied that the approach is justified, effective and consistent with national policy.
62. Policy NZC1 aligns with the FHS and, based on the evidence surrounding the FHS, one way to achieve the required carbon reduction target is to moderately upgrade insulation values compared to existing standards, use more thermally efficient

⁴ [EXAM8] - MHCLG Cost of FHS Impact Assessment (October 2019); [EXAM9] - Etude and Currie and Brown Energy Review and Modelling for Cornwall Council Climate Emergency DPD (January 2021); and MHCLG Live Tables on Energy Performance of Buildings Certificates (October 2021) in combination with BEIS Green Book Supplementary Guidance: Valuation of Energy Use and Greenhouse Gas Emissions for Appraisal (October 2021).

glazing and a heat pump, as identified in the specification for the FHS. It is noted that on-site requirements relating to non-residential development could be delivered through measures that are less extensive. The combination of these measures will vary by use type. However, examples in offices are likely to include modest fabric or glazing upgrades and more efficient lighting and services. These technologies are already widely used in the industry currently.

63. There is no evidence to robustly show any inadequate supply of these technologies to meet the needs of the very small portion of the UK's total development that will take place within Warwick District. Therefore, based on the evidence, I am satisfied that the requirements of Policy NZC1 could be met with an alternate mix of available measures, as identified.
64. It is considered that grid electricity capacity would not be a significant constraint on the delivery of housing. Whilst it is acknowledged that upgrades may be required for specific sites, this is something that must happen in any event when the FHS is introduced and for the UK's wider net zero carbon transition to be realised. Energy efficiencies are targeted first by the DPD and so will minimise the overall demand that new homes put on the electricity grid. Furthermore, it is accepted that any electricity grid upgrade cost must be set against the avoided cost of gas grid connection which can be significant, particularly at greenfield sites.
65. In addition, Policy NZC1 requires that carbon reductions, to the greatest extent feasible, are demonstrated through the required energy statement which allows for exceptional circumstances where full compliance with policy is not feasible or viable due to site constraints. As a result, I find that Policy NZC1, and the DPD, provides sufficient flexibility in its overarching strategy, approach and policies that its implementation will have no unacceptable impact on housing delivery.
66. The Council is in the process of preparing a supplementary planning document (SPD) to support developers in demonstrating the requirements of the DPD, including the content and scope of Energy Statements. To reflect this, the Council produced an initial scope of the guidance in Appendix 1 of its Statement in response to Matter 2. However, there is no direct reference to any such forthcoming guidance within the DPD that would supersede the adopted Sustainable Buildings SPD.
67. To remedy this and make the DPD effective, a modification [**MM18**] is required. The modification will signpost where further information about the content of the required Energy Statement can be found and introduce the supplementary guidance earlier in the DPD. **MM18** is necessary for reasons of soundness to make the DPD justified and effective, as required by paragraph 35c of the NPPF.
68. The overarching strategy of the DPD accords with national policy as it supports the transition to a low carbon future and contributes to radical reductions in greenhouse gas emissions from new development. The approach within Policy NZC1 accords with national technical standards through expressing carbon emission reductions against building regulations and sets efficiency targets beyond those standards under powers granted by the Planning and Energy Act 2008.

69. Having had regard to the Council's declared climate emergency, Policy NZC1 is required to deliver the NPPF expectation⁵ of radical reductions in greenhouse gas emissions in line with the objectives and provisions of the Climate Change Act 2008. The DPD also helps to deliver the plan's legal duty to mitigate climate change as required by Section 19 of the 2004 Act.
70. It is noted that the DPD does not fully align with paragraph 22 of the NPPF which states that strategic policies should look ahead over a minimum 15-year period from adoption. The DPD does not look to extend the overall Local Plan period beyond 2029. It is a partial update of the Local Plan which has a limited and specific scope. The DPD does not change the spatial priorities, the spatial strategy or strategic housing and growth requirements of the Local Plan.
71. The Council has begun a full review of the Local Plan. It is indicated in the Council's latest LDS (March 2024) that this will take time to prepare and adopt, perhaps until late 2027. Nonetheless, it is anticipated that the lifespan of the DPD and its policies will be relatively short given the emerging South Warwickshire Local Plan and its envisaged adoption. The Council has taken a pragmatic and justified approach to responding to its declared climate emergency by preparing a focused DPD, as submitted, which could be adopted earlier than a full Local Plan Review. As a result, I consider this to be a positive, effective and therefore sound approach despite a limited degree of conflict with paragraph 22 of the NPPF.
72. The DPD addresses Objective B and relates to criteria e) of Strategic Policy DS3 of the Local Plan. Policy NZC1 of the DPD further supports and delivers the objectives of the Local Plan by expanding upon existing Local Plan policies including Policies SC0, BE1, HS1, CC1, CC2 and CC3. Consequently, having regard to the relevant submissions made, I find that Policy NZC1 sits comfortably with relevant policies of the adopted Local Plan.
73. Whilst the relationships between the DPD and existing Local Plan policies have been identified, for clarity, modifications relating to Policy NZC1 [**MM01**], Policy NZC2(A) [**MM02**], Policy NZC2(B) [**MM03**], Policy NZC2(C) [**MM05**], Policy NZC3 [**MM06**] and Policy NZC4 [**MM07**] are necessary to ensure that the DPD and its policies are justified, effective and therefore sound.
74. Paragraph 3.3.4 of the DPD explains that during the examination of the Warwick Local Plan, a policy relating to sustainable homes was removed from the plan due to the Written Ministerial Statement (WMS)⁶ setting out the expectation that local planning authorities should not set energy efficiency standards higher than Level 4 of the Code for Sustainable Homes (CSH). The relevant content of that WMS has now been superseded and is now out-of-date. As a result, the restrictions on the ability of local authorities to prepare local building standards policies have now been removed. Therefore, this has provided the Council with the opportunity to prepare a DPD to do this. To reflect this and to clarify that the DPD supports and expands

⁵ Paragraph 152 and Footnote 53 of the NPPF (July 2021)

⁶ Written Ministerial Statement – '*Housing standards: streamlining the system*' 25 March 2015 (HC Deb. 25 March 2015, vol 584, cols 131-138WS)

upon relevant Local Plan policies and does not supersede them, a modification [MM16] to paragraph 3.3.4 of the DPD is required.

75. **MM16** reiterates what is set out in Paragraph 12.1 of the DPD. However, in this instance, it is necessary to also clarify and set out the relationship of the DPD policies to the relevant Local Plan policies at this earlier point of the DPD for justification reasons and to make the DPD effective.
76. Similarly, a modification [MM17] is required at the end of paragraph 3.3.5 of the DPD, to signpost and clarify the relationship between the DPD policies and the Local Plan policies within the DPD. This modification is necessary for soundness to make the DPD justified and effective.
77. To correct the point that the DPD expands upon Policy CC3 of the adopted Local Plan and its requirements rather than supersedes the policy, a further modification [MM15] at paragraph 12.1 of the DPD is required. The modification removes the incorrect clause that states Policy CC3 is superseded by the DPD, and it is necessary to ensure clarity and to make the DPD justified, effective and therefore sound.
78. Overall, with the identified modifications, it is concluded that Policy NZC1 and the overarching strategy and approach within the DPD provides a measurable requirement for carbon emission reductions in developments that complement the policies within the Warwick Local Plan and further delivers the Local Plan objectives.

Issue 1 - Conclusion

79. In conclusion, subject to the main modifications, the DPD provides an appropriate overarching strategy in response to Warwick's declared climate emergency that is positively prepared, justified, effective and consistent with national policy.

Issue 2 – Has Policy NZC2(A) been positively prepared to provide an appropriate approach to achieve energy efficient buildings, ensure the best use of energy sources and facilitate a faster transition to low carbon energy sources and is it justified, effective and consistent with national policy?

80. Policy NZC2(A) is identified as a component policy of NZC1 and is the first step of the energy hierarchy. As such, the policy complies with the WMS. Furthermore, the policies include suitable provision to be applied flexibly to decisions on planning applications.
81. Policy NZC2(A) identifies the parameters and targets to which new development is expected to demonstrate its level of energy efficiency. As such, the policy sets out specific % improvements in carbon reduction through energy efficiency that new development is to comply with. The Policy Review document [SUB5] provides justification for the setting of the % improvement within its section 'Reducing Energy Demand / Improving Energy Efficiency'.

82. In setting a target improvement in energy efficiency, the policy represents the first stage in the energy hierarchy and seeks to reduce the demand for energy through more thermally efficient fabric and other materials to improve energy efficiency. The policy also sets a % improvement in fabric and energy efficiency that is calculated against building regulations (SAP or Simplified Building Energy Model).
83. It is noted that the 10% improvement in fabric efficiency for residential dwellings required by the policy is based on building regulations Part L 2021 and approximately reflects the notional fabric of the FHS. In the Warwick & Stratford-on-Avon District Councils – South Warwickshire Climate Action Support document [SD7], analysis in Warwick identified that a significant improvement in home energy efficiency beyond the existing building regulations is necessary for Warwick to meet its own carbon reduction commitments. Considering the evidence, this approach is therefore justified and effective as the policy requirements would broadly align with the Target Fabric Energy Efficiency (TFEE) of the FHS.
84. In terms of non-residential buildings, the 19% improvement in regulated carbon emissions through energy efficiency measures is calculated against a base of building regulations Part L 2013. The % is based on what has been feasible and viable in other areas for several years, such as in Milton Keynes and London [SUB5]. Further evidence of technical feasibility has been provided in national level analysis.⁷ This shows, for example, that a 15% reduction in new build offices' regulated carbon emissions (against Part L 2013 baseline) can be made by switching to high-efficiency lighting and a 20% carbon reduction can be reached if the developer also makes minor improvements in fabric or other services.
85. Analysis [SD7] shows that energy efficiency improvements in non-residential buildings must contribute to a 17% reduction in non-residential buildings' carbon emissions by 2030 and 40% by 2050 for there to be any possibility of meeting the carbon reductions required in Warwick for it to meet its own climate commitments and play a full role in fulfilling national carbon reduction commitments. As such, the Council has satisfactorily demonstrated that the policy is justified.
86. It is noted that the district-wide energy efficiency trajectory identified is required for the entire non-residential building sector in Warwick, the majority of which is represented by existing buildings which will have to go through a retrofit. This work is acknowledged as being far more challenging and costly to undertake. As such, the Council's view is that a greater contribution to carbon reductions should be made in new buildings which are easier to improve.
87. In terms of facilitating a faster transition to the greater use of low carbon sources, Policy NZC2(A) seeks to deliver improved fabric efficiency to make buildings more compatible with low carbon energy sources. This is because the related technologies tend to deliver heat at lower temperatures compared to gas heating and as a result are more efficient and effective. This is one of several reasons that the Council has identified as to why the improved fabric efficiency sought by Policy

⁷ Currie and Brown on behalf of Committee on Climate Change (2019), *ibid*

NZC2(A) would result in new building stock that will facilitate the immediate or future roll-out of low carbon heat technologies to those new buildings.

88. As I understand it, optimising the efficiency of building fabric is the starting point towards net zero carbon. It reduces the need and demand for the generation of energy through low or zero carbon technologies and improves compatibility with low and zero carbon heat technologies. As a result, by introducing these technologies into new housing stock during construction, whilst it is relatively easy to do so, a greater proportion of housing stock will contribute more prominently and effectively towards the transition to low carbon energy sources.
89. The Policy Review [SUB5] clearly outlines how the approach to Policy NZC2(A) was justified in relation to known calculations of energy efficiency as part of the Government's technical standards or based on sound judgement of other local plan policy requirements. Therefore, the approach in this regard is justified and effective.
90. Paragraph 153 of the NPPF states that plans should take a proactive approach to mitigating and adapting to climate change. Furthermore, paragraph 154b recognises that new development should be planned for in ways that can help to reduce greenhouse gas emissions, such as through its location, orientation and design. In addition, any local requirements for the sustainability of buildings should reflect the Government policy for national technical standards. The approach in Policy NZC2(A) is based on national technical standards as a % improvement on building regulations.
91. In combination, the overarching policy framework of Policy NZC1 and Policy NZC2(A) further enables the Local Plan to deliver on the radical reductions in greenhouse gas emissions in line with the objectives and provisions of the Climate Change Act 2008, as required through paragraph 152 and Footnote 53 of the NPPF. I am therefore satisfied that the policy is consistent with national planning policy.
92. However, to clarify how Policy NZC2(A) relates to adopted Local Plan policies, modification [**MM02**] is needed. This modification sets out the relevant Local Plan policies and how Policy NZC2(A) supports and expands upon those policies. The modification is necessary to make the policy and DPD justified and effective.

Issue 2 – Conclusion

93. I conclude that, subject to the main modification, Policy NZC2(A) of the DPD has been positively prepared and provides an appropriate approach to achieving energy efficient buildings, ensuring the best use of energy sources and facilitates a faster transition to low carbon energy sources. I also conclude that it is justified, effective and consistent with national policy.

Issue 3 – Has Policy NZC2(B) been positively prepared in terms of identifying an appropriate contribution and the necessary support to reducing the carbon emissions that the DPD seeks to achieve through suitable zero or low carbon energy sources and is the policy justified, effective and consistent with national policy?

94. Policy NZC2(B) sets requirements for a certain proportion of carbon savings to be achieved through renewable energy supply. As such, this is not a policy that sets energy efficiency standards as energy supply is a separate issue from energy efficiency. Nonetheless, it is acknowledged that some heating technologies provide elements of both renewable energy and energy efficiency. It is understood that the Council's draft SPD will clarify which technologies should be counted towards the NZC1 / 2A 'energy efficiency' requirements and which, by contrast, should count towards the NZC2(B) 'renewable energy' requirement.
95. Policy NZC2(B) sets out, in effect, the second stage of the energy hierarchy and looks to deliver the regulated energy demands of the building, or development, through low or zero carbon energy sources. It is also noted that the total % reductions in carbon emissions required by Policy NZC1 would be delivered through the carbon savings made through Policies NZC2(A) and (B) and any residual operational carbon emissions would be met through NZC2(C) by offsetting. As such, to ensure that the overall target in NZC1 is met, there is no target % of a building's energy demand that should be provided by renewable or low carbon energy sources.
96. The policy approach is justified in the Policy Review [SUB5] which highlights the importance of grid decarbonisation in the trajectory towards net zero. The approach acknowledges the need for flexibility in the requirement for on-site low and zero carbon technologies and provides a broad definition of allowable solutions, such as the inclusion of a heat pump. The approach requires that, as a minimum, renewable, zero and low carbon energy technologies are included to allow the building to meet the overall % carbon reductions sought by Policy NZC1, and then to achieve on-site net zero operational carbon wherever possible.
97. The requirement is intended to encourage developers to include enough solar panels or a connection to a renewable electricity scheme to bring a development's regulated carbon emissions to zero on-site after having met the energy efficiency requirements of Policy NZC2(A) and, most likely, added low-carbon heat to fulfil the minimum on-site carbon reduction target of Policy NZC1. Again, flexibility is provided in recognising site-specific constraints and allowing off-site solutions or offsetting where developments cannot achieve net zero carbon emissions.
98. Policy NZC2(B) is intended to be implemented in combination with Policies NZC1 and NZC2(A) as a suite of policies. I am satisfied that Policy NZC2(B) and the suite of policies will be effective in reducing carbon emissions to operational net zero. Although there is flexibility built into Policy NZC2(B) regarding available technologies, further guidance would assist with the implementation of the policy. This is to be rectified through reference within the DPD to further guidance on the

scope and content of the required energy statements and is provided through **MM18**. This is necessary for effectiveness.

99. As identified with all other DPD policies, to provide clarification on how Policy NZC2(B) relates to adopted Local Plan policies, modification [**MM03**] is required. The modification identifies the relevant Local Plan policies and how Policy NZC2(B) supports and expands upon those policies. The modification is necessary to make the policy and DPD justified and effective.
100. Local Plan policies SC0 and CC2 include measures and criteria that are supportive of the transition to a low carbon future through the provision of renewable energy. Policy NZC2(B) focuses on the provision of renewable, zero and low carbon energy to meet onsite carbon reductions. As such, it is related to Local Plan Policy CC2. That policy has criteria relevant to the implementation of Policy NZC2(B). Therefore, they are complementary and there is no conflict.
101. Policy NZC2(B) aligns with support provided in paragraphs 152 and 155 of the NPPF in relation to producing a positive strategy to increase the use and supply of renewable and low carbon energy. Furthermore, paragraph 158 of the NPPF outlines that applicants are not required to demonstrate the overall need for renewables or low carbon energy, recognising the contribution that even small-scale projects can have on reducing greenhouse gases. Nonetheless, Policy NZC2(B) also includes flexibility to demonstrate and deal with site-specific feasibility and viability challenges. As such, it aligns with paragraph 157a of the NPPF. Overall, Policy NZC2(B) aligns with the NPPF on the provision of renewable and low carbon energy sources as part of the transition to a low carbon future. The policy further supports the Local Plan objectives and includes sufficient flexibility to enable its implementation in line with adopted policies in the Local Plan.

Issue 3 - Conclusion

102. I conclude that Policy NZC2(B) has been positively prepared in terms of identifying an appropriate contribution and the necessary support to reducing the carbon emissions that the DPD seeks to achieve through suitable zero or low carbon energy sources. I also conclude that the policy is justified, effective and consistent with national policy.

Issue 4 – Has Policy NZC2(C) been positively prepared in terms of providing the necessary robust and appropriate framework the DPD requires for addressing residual carbon from new buildings and ensuring that contributions required through carbon offsetting are reasonable and appropriate and is it justified, effective and consistent with national policy?

103. Policy NZC2(C) is not a policy proposing local energy efficiency standards for buildings. Consequently, it is not substantively affected by the recent WMS.
104. Policy NZC2(C), in concert with Policies NZC2(A) and NZC2(B), addresses the subsequent stage in the energy hierarchy that considers carbon offsetting. Where offsetting is required by the policy, a development proposal will need to demonstrate

that net zero carbon – regulated operational energy – cannot be delivered on-site. The offsetting mechanism of Policy NZC2(C) provides a contribution to the Council's Carbon Offset Fund or delivers verified local off-site offsetting schemes. As a result, offsetting would deliver not only carbon reductions in Warwick District, but also elsewhere in Warwickshire and Coventry and support Local Plan objectives and its relevant policies.

105. To make this connection with the relevant adopted Local Plan objectives and policies clearer, and to clearly justify Policy NZC2(C) in its role in supporting and further delivering those Local Plan objectives and policies, a modification [MM05] to the DPD is required. This inserts a paragraph into the supporting text for Policy NZC2(C) identifying the relevant Local Plan policies relating to the DPD policy. It also provides clarity on the separate and ringfenced relationship between offsetting funds secured through a Section 106 agreement and any Community Infrastructure Levy (CIL) charges.
106. Furthermore, to clarify the separate relationship of the Carbon Offset Fund to CIL and other funds and that the carbon savings are to be monitored separately, a further modification [MM19] is required. These modifications are necessary to make the policy and DPD justified and effective, as required by the NPPF.
107. Policy NZC2(C), with the overarching Policy NZC1, accords with paragraph 152 of the NPPF and the legal duty to mitigate climate change as set out in Section 19 of the 2004 Act. Accordingly, I am satisfied that the mechanism identified to collect carbon offsetting funds in accordance with the tests set out in paragraph 57 of the NPPF provides an appropriate approach to acquiring planning obligations that are required to work towards meeting the aims and objectives of the DPD.
108. In relation to the above tests, it is noted that offsetting may be required to deliver net zero regulated operational carbon emissions in accordance with the DPD policies. In addition, offsetting will relate to residual carbon only resulting from the development. The scale of offsetting contributions will be required to be fairly related in scale and kind to the amount of residual carbon to be offset as calculated through the required energy statement. It will also be appropriately assessed and determined in terms of viability. Furthermore, the cost-per-tonne of carbon directly reflects the nationally determined 'cost of abatement' per tonne of carbon that will need to be abated for the UK to reach its legislated carbon target. As a result, I conclude that Policy NZC2(C) accords with national policy.
109. The supporting text to Policy NZC2(C) makes it clear that carbon offsetting is a last resort in delivering net zero carbon development in the district. Therefore, in combination with the policy framework set out within the DPD, the offsetting mechanism forms a key part of the Council's means to deliver a reduction in carbon emissions and clearly contributes to the overall goal of the DPD. Consequently, I find the approach to be reasonable in relation to tackling the objectives of the DPD.
110. I find that the approach set out in Policy NZC2(C) is justified and that the cost and effectiveness of carbon offsetting and the Carbon Offset Fund under Policy NZC2(C)

has been robustly determined and calculated. It is an appropriate framework for carbon offsetting.

111. The policy approach provides an alternative means for developments where it is not feasible or viable to deliver the sought carbon reductions on site. Also, where offsetting is not fully viable, then residual carbon emissions can be offset to the greatest extent that is viable. Therefore, Policy NZC2(C) is justified and effective when considered in terms of the feasibility and viability of delivering net zero carbon development.
112. The Council is working with Warwickshire County Council (WCC) on setting up the Carbon Offset Fund through the Warwickshire Ecosystem Services Trading Protocol (WESTP). It is understood that the ability to purchase Warwickshire carbon credits through the WESTP will shortly be in place through the creation of woodland on land owned by WCC and the Council. Notwithstanding this, the DPD does not provide this clarification and detail.
113. Therefore, to outline and provide clarification on measures that WCC has taken and put in place in creating a carbon market for Warwickshire which will be the preferred mechanism on adoption of the DPD, modification [MM04] to the DPD is required. This modification provides a clear context for the approach to carbon offsetting and is necessary to make Policy NZC2(C) and its approach justified and effective.

Issue 4 - Conclusion

114. Subject to the main modifications, I conclude that Policy NZC2(C) has been positively prepared and provides the necessary robust and appropriate framework to address residual carbon from new buildings. Furthermore, in providing an appropriate means to ensure contributions required through carbon offsetting are reasonable, I conclude that the policy is justified, effective and consistent with national policy.

Issue 5 – Has Policy NZC3 been positively prepared in setting out an appropriate and proportionate approach to assessing embodied carbon in the proposed materials of a development and is it justified, effective and consistent with national policy?

115. Policy NZC3: Embodied Carbon is not a policy proposing local energy efficiency standards for buildings. Consequently, the policy is not substantively affected by the recent WMS.
116. The Local Plan makes no direct reference to embodied carbon. Nonetheless, as identified with other DPD policies, Objective B of the Local Plan addresses climate change and Strategic Policy DS3 which aims to deliver a low carbon economy, lifestyles and environmental sustainability. Local Plan Policy CC3 requires major non-residential development over 1,000sqm to achieve BREEAM 'Very Good'. Embodied carbon is a consideration within BREEAM and therefore the proposed threshold of Policy NZC3 is consistent with Policy CC3. However, this is not set out clearly in the DPD. To provide clarity, a modification [MM06] which sets out the

above within the DPD is necessary for soundness, to make the DPD policy justified and effective.

117. The justification for Policy NZC3 is set out within its supporting text in the DPD and in the Policy Review document [SUB5]. This identifies that embodied carbon emissions will form a greater proportion of overall carbon from a development as the operational emissions from buildings decrease over time through the implementation of the DPD policies and building regulations. The embodied carbon emissions can be up to 50% of total emissions over a new building's lifetime.
118. The Council identified that tackling embodied carbon was highlighted through consultation as a matter for the DPD to address as part of the transition towards net zero. Consequently, the inclusion of a policy on embodied carbon in the DPD is both justified and effective. Moreover, taking account of the significant contribution of embodied carbon to overall carbon emissions, I consider the approach of the DPD policy to require the consideration and reduction of embodied carbon where possible to be, along with national policy, part of a proactive approach that is consistent with paragraph 153 of the NPPF.
119. Policy NZC3 requires major developments to consider, within an energy statement or a design statement, the embodied carbon of proposed materials and reduce this where possible having regard to the type, life cycle and source of the materials. Paragraph 9.3 of the DPD refers to environment assessment methods such as BREEAM or Home Quality Mark (HQM) pre-assessments with reference to the BRE Green Guide as suitable to address the materials used in development.
120. Super-major developments (50+ dwellings and/or 5,000sqm of non-residential floorspace) would most likely use the industry standard method to report on embodied carbon which is the RICS Whole-Life Carbon Assessment for the Built Environment (RICS assessment). The Council will provide further guidance on embodied carbon assessment [MM20] alongside further guidance on energy statements [MM18] which will be developed to support the implementation of the DPD.
121. Although acknowledged as the industry standard method, the RICS assessment is not specified within the DPD. To rectify this, a modification [MM20] to the DPD is required to clarify that the RICS assessment is also considered as appropriate, and that guidance will be provided on the type and scope of embodied carbon assessments required. The modification is necessary for soundness reasons to make the DPD effective.

Issue 5 - Conclusion

122. Subject to the main modifications identified, I conclude that Policy NZC3 has been positively prepared in terms of setting out an appropriate and proportionate approach to consider and assess embodied carbon in the proposed materials of a development. I also conclude that the policy is justified, effective and consistent with national policy.

Issue 6 – Has Policy NZC4 been positively prepared in the light of providing an appropriate response to the consideration of sustainable construction and design and low carbon energy sources in existing buildings that the DPD requires and is it justified, effective and consistent with national policy?

123. Policy NZC4: Existing Buildings is not a policy proposing local energy efficiency standards for buildings. Consequently, the policy is not substantively affected by the recent WMS. As with Policy NZC3 on embodied carbon, Policy NZC4 has emerged as a result of the tackling emissions from existing buildings being raised through the Regulation 18 consultation. The Policy Review document [SUB5] identifies that tackling carbon emissions from existing buildings is of high and urgent importance based on the overall contribution they make to Warwick's total carbon emissions (42.2%). It is also recognised that it will not often be possible to retrofit existing buildings to the same level of fabric efficiency as new builds. As such, it is reasonable to consider that a different policy approach is needed in relation to existing buildings compared to new buildings.
124. Evidence [SUB5] illustrates precedents where other local authorities have implemented policies to support proposals that result in significant carbon reduction in existing buildings through energy efficiency and low or zero carbon energy generation. Policy NZC4 utilises this approach. It is reasonable that all developments involving existing buildings demonstrate a consideration toward sustainable construction principles in accordance with Local Plan Policy CC1 and consider alternatives to fossil fuel boilers. Furthermore, with the significant contribution that existing buildings make to Warwick's overall carbon emissions, it is appropriate, justified and effective to have a policy which seeks to reduce such emissions through planning applications involving existing buildings.
125. Whilst there is a clear connection between Policy NZC4 and Local Plan Policy CC1, again the DPD does not clearly identify this or the connections it has with other relevant policies in the Local Plan. To clarify this important policy relationship, and for consistency across the DPD and the development plan, modification **MM07** is necessary. It is required to make Policy NZC4 justified and effective.
126. Policy NZC4 is supported by paragraphs 119, 120 and 154 of the NPPF in terms of the reuse of existing land and buildings. The expectation is that planning policies and decisions will ensure that developments function well over time and will be adaptable to climate change. The policy approach also aligns with paragraph 124 of the NPPF which states that planning policies should support the efficient use of land, taking account of land availability and the desirability of maintaining an area's prevailing character or of promoting regeneration and change. Policy NZC4 also references historic buildings, including listed buildings, giving support for retrofitting measures to improve energy efficiency and performance, provided that special characteristics are conserved in a way appropriate to their significance. This aligns with Section 16 of the NPPF and as such it is considered that Policy NZC4 accords with national policy.

127. In my view, the policy has no unacceptable impact on the development industry. It requires alternatives to fossil fuels to be considered and does not set mandatory carbon reduction targets for existing buildings. There is reference in the policy to existing detailed guidance on retrofitting existing buildings and a heating energy demand target is recommended. Overall, the policy provides a positive approach to reducing carbon emissions in existing buildings by explicitly supporting those proposals which offer considerable improvements.
128. To ensure clarity that the DPD includes standards within Policy NZC4 that apply to existing buildings as well as new buildings, a modification [MM11] to Objective 2 of the DPD is required. This is needed to make the objective effective, as required by the NPPF. MM08 also includes an addition of the word 'existing' to clarify the DPD's aim of minimising carbon emissions from both existing and new buildings.

Issue 6 - Conclusion

129. Subject to the main modifications, I conclude that Policy NZC4 has been positively prepared to appropriately consider and assess sustainable construction and design and low carbon energy sources in existing buildings. I also conclude that the policy is justified, effective and consistent with national policy in this regard.

Overall Conclusion and Recommendation

130. The DPD has a number of deficiencies in respect of soundness for the reasons set out above, which mean that I recommend non-adoption of it as submitted, in accordance with Section 20(7A) of the 2004 Act. These deficiencies have been explained in the main issues that I have set out above.
131. The Council has requested that I recommend MMs to make the submitted DPD sound and legally compliant and capable of adoption. I conclude that the duty to cooperate has been met and that with the recommended main modifications set out in the Appendix to this Report, the Warwick District Council Net Zero Carbon Development Plan Document satisfies the requirements referred to in Section 20(5)(a) of the 2004 Act and meets the criteria for soundness in the NPPF.

Andrew McCormack

Inspector

This report is accompanied by an Appendix which contains the Schedule of Main Modifications.

APPENDIX 2: Net Zero Carbon Development Plan Document

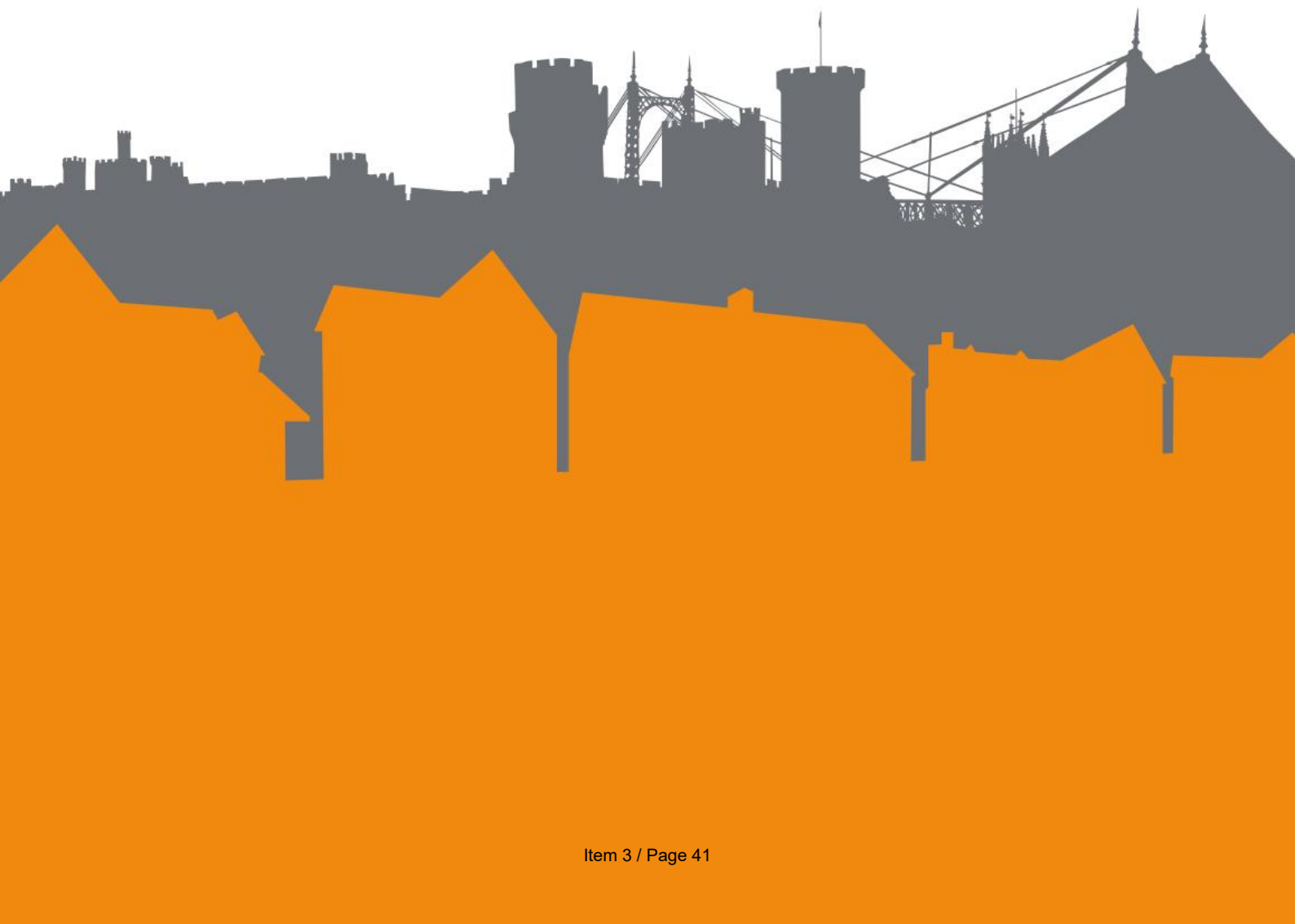
**(updated to reflect Main and
Additional Modifications).**

Warwick District Council

NET ZERO CARBON

DEVELOPMENT PLAN DOCUMENT

May 2024



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1.The Local Context

1.1 Warwick District Council's Climate Change Commitments

1.1.1 On 27 June 2019 Members of Warwick District Council (WDC) unanimously declared a climate emergency, issuing the following statement:

"In October 2018, the IPCC Intergovernmental Panel on climate change issued a special report on the state of global warming, which warned of the rapid and far reaching consequences of over 1.5 °C of warming on all aspects of society. The Council recognises the importance of this report with the motion now adopted along with the following commitments".

- i) Becoming a net-zero carbon organisation, including contracted out services, by 2025.
- ii) Facilitating decarbonisation by local businesses, other organisations and residents so that total carbon emissions within Warwick District are as close to zero as possible by 2030.
- iii) Working with other local councils to lobby central government to help address the above points including by funding and changing regulation.
- iv) Engaging with and listening to all relevant stakeholders including members of the Warwickshire Youth Parliament regarding approaches to tackling the climate emergency.
- v) Ensuring that tackling the Climate Emergency is central to the strategic business plan – both in terms of adaptation and mitigation.
- vi) Producing within six months an action plan to implement these commitments."

1.1.2 Following this, the Council adopted a Climate Emergency Action Programme (CEAP) at its meeting in February 2020. The Action Programme included a strong recognition of the important influence of planning in tackling climate change including the following areas for possible action:

- Ensure that the planning system, led by the Local Plan, sets developments and land use standards aimed at reducing carbon emissions and building sustainable communities
- Develop and implement policies that will deliver improved net zero carbon building standards - subject to national policy
- Ensure carbon reduction features and BREEAM standards are included in major development schemes.

1.1.3 The CEAP recognises the importance of the planning system in achieving its ambitions: "In the coming decade, Warwick will have to improve the efficiency of all its buildings to reduce the demand for energy. Low carbon and/or renewable heating, energy reduction and an increase in the adoption of energy efficiency technologies in both commercial and domestic buildings will be required." A key part of this is a proposal to "Develop and implement policies that will deliver improved net zero carbon building standards".

1.1.4 The Council has also agreed to a Climate Change Action Program (CCAP) which has been shaped by Warwick's Climate Change People's Inquiry which convened during 2020 and 2021, and a detailed emissions report by Anthesis on behalf of Warwick and Stratford Council's. These have helped to shape the climate ambitions of the Council and set targets for delivery.

- 1.1.5 Recognising that the Council had declared a climate emergency, the preparation of a Climate Change Development Plan ahead of a Local Plan review was identified as an area for early priority focus when the Executive (now Cabinet) approved the year 1 priorities in December 2020. This was considered to be an important early element in enabling Warwick District to be as close as possible to net zero by 2030.
- 1.1.6 Development plan documents (DPDs) are the statutory elements of the Local Plan and as such this document provides new and extended policies to those found in the Local Plan with regard to climate change and sustainable buildings. This DPD outlines the issues we are facing in terms of climate change in order to facilitate delivery of the Council's commitments outlined above.

1.2 About Warwick District

- 1.2.1 Warwick District lies between the city of Coventry to the north, rural parts of Solihull Metropolitan Borough to the north and west, Stratford-on-Avon District to the south and Rugby Borough to the east. It enjoys good links by rail to Birmingham and London. There are regionally significant road networks linking to the M40, A45 and A46 corridors within and adjacent to the district.
- 1.2.2 90% of the 137,700 residents (2011 Census) live in the main urban areas of Kenilworth, Royal Leamington Spa, Warwick, and Whitnash with the remaining 10% living in a number of relatively small villages. Updated estimates put the district's population at 143,753 in 2019.
- 1.2.3 Relative to the West Midlands as a whole, the district has a strong local economy, with a skilled population and higher than average levels of productivity and earnings.
- 1.2.4 The district's relative prosperity masks some significant areas of deprivation however.
- 1.2.5 Approximately 80% of the district's rural area lies within the West Midlands Green Belt, with only the area to the south of Warwick, Whitnash and Royal Leamington Spa lying outside it.
- 1.2.6 81% of total employment in the district is provided in the professional services, health and education sectors together with retailing and public administration. There are strong representations of companies dealing in computing, IT and communications technology and the gaming industry (2011 Employment Land Review).
- 1.2.7 Overall, it has been estimated that the District is responsible for 1,259,600 tonnes CO₂e per year (based on 2017 SCATTER figures). Of this around 40% of carbon emission arises from buildings (split evenly between residential buildings and institutional/commercial/industrial buildings).
- 1.2.8 Excluding embodied carbon, residential buildings make up 21.7% of carbon emissions across the district. The Council is committed to reducing the districts carbon emissions by 55% by 2030, it is anticipated that new homes built in accordance with this DPD will have the potential to reduce emissions by 7,000t CO₂ per year.
- 1.2.9 'Carbon' is used in this DPD as a shorthand term for all greenhouse gases excluding water vapour (see Glossary for definitions of key terms). This will require the reduction of all greenhouse gases, of which carbon dioxide is the most prominent. .

2. National Context

- 2.1 The UK's international commitment via the Paris Agreement requires the UK to reduce its carbon emissions to an extent that would limit climate change to no more than 2°C and pursue a limit of 1.5°C.
- 2.2 The Committee on Climate Change (CCC) advises the government on emissions targets and reports to Parliament on progress made in reducing greenhouse gas emissions. CCC is an executive non-departmental public body, sponsored by the Department for Business, Energy and Industrial Strategy. The CCC reports that 40% of UK emissions come from households devising that this can be reduced by continuing to reduce, reuse or recycle waste, switching to smart heating systems and by walking, cycling and investing in a more efficient or an electric car.
- 2.3 The 2020 CCC update report states that the Committee has assessed a wide set of measures and gathered the latest evidence on the role of climate policies in the economic recovery. Its report highlights five clear investment priorities in the months ahead:
- Low-carbon retrofits and buildings that are fit for the future
 - Tree planting, peatland restoration, and green infrastructure
 - Energy networks must be strengthened
 - Infrastructure to make it easy for people to walk, cycle, and work remotely
 - Moving towards a circular economy.
- 2.4 The report finds that UK action to curb greenhouse gas emissions is lagging behind what is needed to meet legally-binding emissions targets. There is near-complete elimination of greenhouse gas emissions needed from UK buildings to meet the UK's legally binding targets .
- 2.5 The UK has legislated for net-zero emissions by 2050 and in a statement in April 2021, the Prime Minister announced the UK's ambition to cut greenhouse gas emissions by 78% by 2035. This announcement relates to the UK's sixth carbon budget which sets a restriction on the total amount of carbon to be emitted over a five year period (2033-2037), and subsequent carbon budgets will reduce emissions even further.
- 2.6 Given the significant proportion of emissions nationally that stem from buildings, it is a key part of the Government's strategy to improve building standards. As a result, the Government has published new Building Regulations during 2022, updating Part L for new homes and non-domestic buildings as a first step towards a Future Homes Standard. The new Building Regulations require standards that are expected to reduce emissions from new buildings in comparison with previous 2013 standards by 31%. Further, proposals to bring into effect a Future Homes Standard from 2025 have been published. The proposed Future Homes Standard seeks to deliver homes that are zero-carbon ready by:
- setting the performance standard of the Future Homes Standard at a level which means that new homes will not be built with fossil fuel heating, such as a natural gas boiler.
 - future-proofing homes with low carbon heating and high levels of energy efficiency.
 - ensuring no further energy efficiency retrofit work will be necessary to enable them to become zero-carbon as the electricity grid continues to decarbonise.

³ <https://www.theccc.org.uk/wp-content/uploads/2016/07/5CB-Infographic-FINAL-.pdf>

⁴ <https://www.theccc.org.uk/publication/reducing-uk-emissions-2020-progress-report-to-parliament/>

⁵ <https://www.theccc.org.uk/publication/uk-housing-fit-for-the-future/>

- 2.7 The Government expects the proposals for a Future Homes Standard to ensure that an average home will produce at least 75% lower CO₂ emissions than one built to current (2013) energy efficiency requirements. In the short term this represents a considerable improvement in the energy efficiency standards for new homes. Homes built under the Future Homes Standard will be 'zero carbon ready', which means that in the longer term, no further retrofit work for energy efficiency will be necessary to enable them to become zero-carbon homes as the electricity grid continues to decarbonise."
- 2.8 The Future Homes Standard includes proposals for fabric first to achieve energy efficient building construction and low carbon heat options, such as an intention "to move away from heating our homes with fossil fuels" recognising that it is "unlikely that there will be a one-size-fits all solution, so multiple technologies will play a role", whilst recognising that "Currently, electrification is one of the few proven scalable options for decarbonising heat. As set out in the consultation, we expect heat pumps will become the primary heating technology for new homes under the Future Homes Standard and we believe that it is therefore important to build the market for them now".
- 2.9 Alongside its plans to decarbonise new buildings by 2025 through the Future Homes Standard, the Government has clarified its position with regard to the power of Local Authorities to set standards which go beyond the Building Regulations. Specifically, the proposals state:
- "All levels of Government have a role to play in meeting the net zero target and local councils have been excellent advocates of the importance of taking action to tackle climate change. Local authorities have a unique combination of powers, assets, access to funding, local knowledge, relationships with key stakeholders and democratic accountability. This enables them to drive local progress towards our national climate change commitments in a way that maximises the benefits to the communities they serve. As part of this, the Government wishes to ensure that we have a planning system in place that enables the creation of beautiful places that will stand the test of time, protects and enhances our precious environment, and supports our efforts to combat climate change and bring greenhouse gas emissions to net zero by 2050.
- We recognise that there is a need to provide local authorities with a renewed understanding of the role that Government expects local plans to play in creating a greener built environment; and to provide developers with the confidence that they need to invest in the skills and supply chains needed to deliver new homes from 2021 onwards. To provide some certainty in the immediate term, the Government will not amend the Planning and Energy Act 2008, which means that local planning authorities will retain powers to set local energy efficiency standards for new homes."
- 2.10 Alongside this, lenders, investors and shareholders are likely to put increasing pressure on developers to decarbonise. This combination of shifting national policy and changes to the way development is financed, provide important context to local planning policies which support decarbonisation of new development.

2.11 In declaring a climate emergency, WDC has committed to “facilitating decarbonisation by local businesses, other organisations and residents so that total carbon emissions within Warwick District are as close to zero as possible by 2030.” The Council is therefore committed to introducing standards which enable net-zero carbon buildings as soon as possible. Recognising the Government’s position that “local planning authorities will retain powers to set local energy efficiency standards for new homes”, Warwick District Council is committed to bringing forward policies ahead of the Government’s stated timetable for the Future Homes Standard, whilst ensuring the approach we take broadly aligns with the approach set out in the Government’s outline proposals. This DPD provides the building standards policies to achieve this and these policies supplement those within the adopted Warwick District Local Plan, 2011 – 2029 (See Section 12). The policies will be incorporated and built on in the preparation of the emerging South Warwickshire Local Plan.

3. The Planning Policy Context

3.1 National Planning Policy Framework (NPPF), July 2021

- 3.1.1 The NPPF originally published in 2012 and revised in 2018 and 2019, was updated in July 2021 and addresses the issue of sustainability by promoting sustainable development and encouraging sustainable transport. The NPPF addresses climate change and directs meeting the challenge of flooding and coastal change and adapting accordingly. It also directs that plans should include policies that move toward a low carbon economy.
- 3.1.2 It goes on to say in paragraph 9, that “These objectives should be delivered through the preparation and implementation of plans and the application of the policies in this Framework; they are not criteria against which every decision can or should be judged. Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account to reflect the character, needs and opportunities of each area.
- 3.1.3 The NPPF addresses the need for the planning system to address climate change through Chapter 14, notably paragraphs 152, 153, 154 and 157. Local requirements for sustainability of buildings should reflect Government policy for national technical standards in accordance with Paragraph 154.

3.2 Planning Practice Guidance updated in 2019

- 3.2.1 The Planning Practice Guidance states that: “Addressing climate change is one of the core land use planning principles which the National Planning Policy Framework expects to underpin both plan-making and decision-taking. To be found sound, Local Plans will need to reflect this principle and enable the delivery of sustainable development in accordance with the policies in the NPPF. These include the requirements for local authorities to adopt proactive strategies to mitigate and adapt to climate change in line with the provisions and objectives of the Climate Change Act 2008, and co-operate to deliver strategic priorities which include climate change.”

3.3 Warwick District Local Plan 2011-2029, adopted September 2017

- 3.3.1 The adopted Local Plan was prepared at a time when the NPPF was a recently published document which directed planning authorities to prepare plans for sustainable development. Policies were therefore written with this very much in mind. One of the policy areas considered was “climate change mitigation and adaptation, and the conservation and enhancement of the natural and historic environment, including landscape.”
- 3.3.2 Identified issues included:
- The threat of flooding to homes and businesses in some areas, and the concern that flooding events will increase because of climate change
 - Pressure for new development and climate change threatening the high-quality built and natural environments in the district, particularly in historic areas.
- 3.3.3 These policies aim to protect those elements of the environment that support and generate climate change resilience and include the more strategic objectives that are expected to contribute towards sustainable development and adaptation.

3.3.4 There are policies on climate change and water conservation. However, it should be noted that the Examination of the adopted Local Plan took place within the context of a Written Ministerial Statement setting out an expectation that local planning authorities should not set energy efficiency standards for new homes higher than the energy requirements of Level 4 of the Code for Sustainable Homes. This meant that the draft policy relating to sustainable homes was removed from the Plan prior to adoption. Following adoption, restriction on the ability of local authorities to prepare local building standards policies was lifted and thus provides the opportunity to prepare a DPD to do this. This DPD expands on the Warwick District Local Plan 2011-2029 policies and introduces standards for development which will positively contribute to the new targets set by both local and central government since the Local Plan was adopted.

Local Plan policies to be expanded by this DPD are as follows:

- Policy SC0 Sustainable Communities
- Policy BE1 Layout and Design
- Policy HS1 Healthy, Safe and Inclusive Communities
- Policy CC1 Planning for Climate Change Adaptation
- Policy CC2 Planning for Renewable Energy and Low Carbon Generation
- Policy CC3: Building Standards and other Sustainability Requirements

3.3.5 The Warwick District Local Plan 2011 -2029 forms the framework within which developments are expected to conform. The Local Plan already contains policies which deal with aspects of climate change such as adaptation. This DPD should be used alongside the Local Plan and forms part of the development plan for the area. It carries equal weight and where policies set higher standards, these will take precedence and will further meet the Local Plan Objectives. The relationship between each of the policies in this DPD and the Local Plan policies is detailed for each policy in the supporting text.

3.3.6 There is an adopted Sustainable Buildings SPD, dated December 2008. This is now very much in need of updating and the DPD will supersede it upon adoption. To assist the implementation of the DPD policies, the Council will also provide supplementary guidance alongside the DPD, including on the contents of Energy Statements.

3.4 Neighbourhood Development Plans (NDPs)

3.4.1 NDPs become part of the local development framework when they are 'made' and policies carry the weight of those in the Local Plan. Sustainable development and climate change issues can and should also be addressed in policies in NDPs and any relevant adopted policies will need to be complied with when planning applications are submitted. There are currently 9 made Neighbourhood Plans within Warwick District. Policy NZC1 set out below is a Strategic Development Plan Policy with which new and updated Neighbourhood Plans are expected to conform.

3.5 Information and reference for further relevant international, national and local policy are set out at Appendix 1.

4. Aims and Objectives

4.1 Aim

- 4.1.1 This DPD aims to minimising carbon emissions from existing and new buildings within the District to support the achievement of national and local carbon reduction targets set out in section 1.1 and paragraph 2.5 above. From adoption (and earlier where possible) the DPD will aim to ensure all new developments (as set out on para 5.11) should be net zero carbon in operation. For the purposes of this DPD net zero carbon relates to regulated operational energy, which results from fixed building services and fittings (space heating, cooling, hot water, ventilation and lighting).
- 4.1.2 To work towards this aim, the DPD is designed to ensure that new development's contribution to the District's carbon deficit is minimised and that new homes do not add to the significant number of existing buildings in the District that will need costly and disruptive retrofit as part of the local and national transition to achieve net zero carbon. By bringing forward performance standards equivalent to the Future Homes Standard (two years in advance of its national introduction) the new homes should not need future retrofit, and by collecting carbon offset payments the DPD will raise funds to deliver other vital but currently underfunded actions necessary for the national and local transition to net zero – such as additional renewable energy, retrofit of other existing buildings, or creation of woodland.

4.2 Objectives

- 4.2.1 Objective 1: To provide a clear policy framework to enable developers to understand the requirements for planning proposals to ensure new buildings are planned and constructed to be net zero regulated carbon in operation.
- 4.2.2 Objective 2: To ensure practical and viable low carbon building standards that can be applied to new and existing buildings.
- 4.2.3 Objective 3: To support the consideration of low carbon energy sources as part of development proposals.
- 4.2.4 Objective 4: As a last resort, to provide the policy framework for addressing residual carbon from new buildings through a robust carbon offsetting policy.

5. Overarching strategy: Achieving Net Zero Carbon Development

- 5.1 New development that falls within the scope of this Development Plan (as set out in 5.11 below) is expected to comply with the whole Plan.

Policy NZC1: Achieving Net Zero Carbon Development

New development of one or more new dwellings (C3 or C4 use class) and/or 1,000sqm or more of new non-residential floorspace, hotels (C1 use class), or residential institutions (C2 use class) should achieve net zero operational regulated carbon emissions by implementing the energy hierarchy.

Proposals should demonstrate application of the energy hierarchy through submission of an energy statement which identifies:

- i. For new dwellings, a minimum 63% reduction in carbon emissions is achieved by on-site measures, as compared to the baseline emission rate set by Building Regulations Part L 2021 (SAP 10.2).
- ii. In non-residential buildings, hotels and residential institutions achieve at least a 35% reduction in carbon emissions through on-site measures compared to the rate set by Building Regulations 2013 (or equivalent percentage reduction on Building Regulations 2021).
- iii. Compliance with the energy efficiency and renewable energy provisions set by policies NZC2(A) & (B) and by presenting the carbon savings achieved across each step of the energy hierarchy (demand reduction, efficient supply, renewable and other low-carbon technology).
- iv. Any residual operational regulated carbon emissions (over the course of 30 years) will be calculated and offset to zero in accordance with policy NZC2(C). Offsetting will only be considered an acceptable solution to net zero carbon requirements if it can be demonstrated that carbon reductions achieved via on-site measures (and near-site renewables) are demonstrably unfeasible or unviable.

Where full compliance is not feasible or viable, proposals must demonstrate through the energy statement that carbon reductions to the greatest extent feasible have been considered and incorporated through applying the energy hierarchy. In applying the energy hierarchy, proposals are expected to implement fabric energy efficiency and low carbon heating before incorporating renewable electricity generation and then offsetting.

A condition will be applied to planning permissions requiring as built SAP or SBEM calculations to be submitted prior to occupation and demonstrating that the finished building meets the standard set in Policy NZC1.

Alternatively, applications may demonstrate the requirements of Policy NZC1 are met through the Passivhaus standard with accompanying PHPP calculations submitted within the energy statement (without the use of fossil fuels on site including gas). A condition will be applied requiring Passivhaus certification prior to occupation.

- 5.2 This strategy has been designed to deliver the objectives set out in section 4 above. The focus is on providing a practical and viable approach to deliver new development which is net zero carbon in operation in relation to regulated operational energy.
- 5.3 Improving energy efficiency and minimising our energy demand is the most cost-effective way to minimise new infrastructure that will be required to achieve a zero-carbon energy system and thus represents the starting point for the whole net zero journey. Improving energy efficiency in new homes will reduce the need for costs and future carbon emissions in retrofitting buildings at a later date and contribute to the total reduction in energy demand.
- 5.4 As a District that can demonstrate levels of development viability that can accommodate energy efficiency measures that go beyond the 2021 Part L building regulations, Policy NZC1 requires developments to achieve building performance that is broadly consistent with national ambitions as set out in the proposed Future Homes Standard to be introduced in 2025.
- 5.5 The percentages derived in NZC1 reflect the emissions reductions required for buildings to align with the Future Homes Standard, based on 2021 Building Regulations.
- 5.6 The strategy seeks to achieve this by requiring applicants to address carbon emissions by applying the energy hierarchy (as shown in Figure 1) sequentially in three ways:

1: Reduce energy demands. Developments should be designed to minimise demand for energy in operation, thereby minimising carbon emissions. This involves:

- a) Considering the potential for technology that enables occupants to live in ways that minimise energy demands.
- b) Maximising energy efficiency.

2: Zero or low carbon energy sources. To meet energy demands in operation, developments should incorporate or utilise zero or low carbon energy sources. This involves:

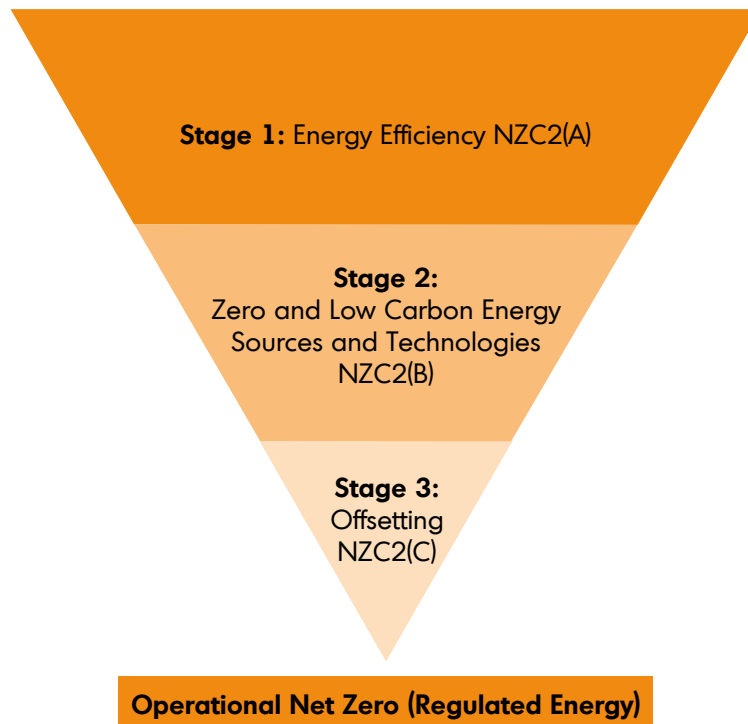
- a) Considering the potential to utilise large scale renewable or low carbon energy sources such as heat networks or local large-scale renewable energy generation sources, through a direct connection.
- b) Incorporating passive and renewable energy sources within the development.

3: Carbon Offsetting. Developments that result in residual operational carbon emissions having incorporated stage 1 and stage 2, will be subject to carbon offsetting requirements to bring the total operational carbon emissions (regulated energy) to net zero.

⁶ Using a compound percentage based on government statements about the carbon reductions that will be achieved in 2021 and 2025 compared to 2013, the targets have been calculated with the following assumptions: Part L 2021 is a 31% reduction on Part L 2013, The Future Homes Standard is a 75% reduction on Part L 2013, which equates to the FHS being a 63.8% reduction on Part L 2021.

Figure 1: Energy Hierarchy

Overall emissions reduction target to achieve net zero carbon buildings (NCZ1)



- 5.7 A condition will be applied to relevant planning permissions requiring as built SAP or SBEM calculations to be submitted prior to occupation and demonstrating that the finished building meets the standard set in Policy NZC1. For sites of over 10 dwellings where standard house types are used, a sample of at least 20% of all dwellings (and including all house types) shall be tested.
- 5.8 To ensure the SAP or SBEM calculations identifying the carbon emissions are as accurate as possible, applicants will be required to perform SAP or SBEM calculations at the following points of the design:
1. Pre-planning, using design values and submitted within the planning application energy statement.
 2. Post-construction and preoccupation, using figures from the building as constructed, incorporating the following:
 - i. Any specification changes to design values made to any SAP/SBEM regulated building element during construction.
 - ii. The measured air-permeability, tested in accordance with the procedures set out in TM23, and reported as statutory compliance in Section 7 Part L.
 - iii. Accredited construction detail performance as confirmed by infra-red thermographic survey and selective borescope surveys.
 - iv. Commissioning logbooks provided to demonstrate that ventilation and heating systems are operating as intended.

⁷ Calculations should be performed using the latest version of the SAP 10.2 methodology (current version 20.08.2021). Government has confirmed that this calculation will become the statutory methodology by June 2022 along with the interim uplift to Part L.

If the completed building fails to meet the conditioned standard, the developer must take reasonable remediation measures. Any residual operational regulated carbon emissions will be required to be offset in accordance with Policy NZC2(C) whether identified at application stage or pre-occupation, unless this is demonstrated to be unviable.

- 5.9 Furthermore, to ensure the energy performance gap is minimised we recommend the use of a recognised quality assurance process that ensures the 'as built' performance (energy use, carbon emissions, indoor air quality, and overheating risk) matches the calculated design performance of buildings. Examples of these include BEPIT (Building Energy Performance Improvement Toolkit), the Passivhaus accreditation process and the Assured Performance Process (National Energy Foundation NEF/Good Homes Alliance GHA).
- 5.10 A condition will be applied to planning permissions requiring developers to produce a home user guide in accordance with the updated approved document L template.
- 5.11 Policy NZC1 sets out what is required of development proposals to demonstrate the delivery of this strategy. The policies in this plan will apply to the following new developments (except where otherwise specified):
- a) All new residential developments of 1 dwelling or more (C3 or C4 use)
 - b) All new non-residential buildings, hotels (C1 use class) or residential institutions (C2 use class) of 1,000sqm or more floorspace.
- 5.12 This policy supports and expands upon Local Plan policies DS3, SC0, HS1, BE1, CC1, CC2 and CC3 through introducing standards for development which will positively contribute to reducing carbon emissions against local and national targets. The DPD aligns with and should be read alongside Local Plan policy DM1 with regard to financial contributions towards carbon offsetting and policy DM2 with regard the assessment of the viability of development to meet the policies of the DPD and development plan as a whole.

6. Reducing Energy Demands: Energy Efficient Buildings

Policy NZC2(A): Making Buildings Energy Efficient

New development of one or more new dwellings (C3 or C4 use) are expected to demonstrate a 10% improvement on the Part L 2021 Target for Fabric Energy Efficiency.

New developments of 1,000sqm or more of new non-residential floorspace, hotels, (C1 use class) or residential institutions (C2 use class) are expected to demonstrate that they achieve a 19% reduction in carbon emissions compared to Part L 2013 through energy efficiency measures (fabric efficiency, efficient services and efficient energy supply; steps 1 and 2 of the energy hierarchy).

Where full compliance is not feasible or viable having regard to the type of development involved and its design, proposals must demonstrate through the energy statement that carbon reductions to the greatest extent feasible through energy efficiency measures have been considered and incorporated.

All energy statements must also lay out the U-values and airtightness of the proposed building in comparison to the notional values in the Future Homes Standard or Future Building Standard (indicative specification, or final, as available at time of application).

- 6.1 The energy efficiency of buildings has a significant part to play in achieving the Council's net zero aims, but it also carries wider benefits for consumers and the country at large. We know that, in addition to reducing CO₂ emissions, energy efficient homes minimise energy bills, provide healthier and more comfortable environments to live in, and ensure that we are making the best use of energy resources which in turn will help facilitate a faster transition to low carbon energy sources for all.
- 6.2 The Standard Assessment Procedure (SAP) is the methodology used by the Government to assess and compare the energy and environmental performance of dwellings.
- 6.3 To demonstrate compliance with policy NZC2(A), calculations should be performed using the latest version of the SAP methodology.
- 6.4 All developments must demonstrate the extent to which compliance with Policy NZC2(A) is achievable through an energy statement. It is acknowledged that it may not be feasible for some types of commercial development (hotels and schools) to achieve the 19% carbon reduction from energy efficiency measures, due to high peak hot water demand and will be considered on a case-by-case basis.
- 6.5 The 10% improvement in dwellings is set to reflect the approximate uplift to building fabric (U-values and airtightness) between Part L 2021 and the indicative Future Homes Standard 2025. There is national government estimated cost data on the achievement of these fabric measures, which has been taken into account in the whole-plan viability assessment.
- 6.6 The 19% improvement for non-residential dwellings reflects that and which evidence has identified is demonstrably feasible and viable in Milton Keynes.

- 6.7 To demonstrate compliance with this policy, development proposals should provide data that is consistent with the building performance metrics set out in the Government's response to the Future Homes Standard consultation (January 2021) or any subsequent set of metrics required through the Building Regulations. At the time of drafting this policy, this requires four metrics to be provided:
- i) Primary energy target
 - ii) CO₂ emission target
 - iii) Fabric energy efficiency target
 - iv) Minimum standards for fabric and fixed building services.

The use of these metrics will ensure consistency and clarity in the way data is collated and set out.

- 6.8 The approach focuses on a fabric first methodology to ensure the maximum benefits of passive and low energy design and technology can be achieved. This serves to reduce energy demand and minimise lifecycle cost.
- 6.9 In addition to the requirements of this policy, proposals for dwellings should consider how to make best use of site orientation, building form, layout, landscaping and materials to maximise natural light and heat, whilst avoiding internal overheating by providing passive cooling and/or mechanical ventilation, thus reducing potential overheating and reliance on air conditioning systems.
- 6.10 On all new dwellings and commercial development over 1,000sqm it will be expected that the development is tested through the most up to date SAP calculations to demonstrate the performance gap between design and construction. These calculations would take place in accordance with the methodology set out in paragraph 5.9 For sites of over 10 dwellings where standard house types are used, a sample of at least 20% of all dwellings (and including all house types) shall be tested.
- 6.11 This policy supports and expands upon Local Plan policies DS3, SC0, HS1, BE1, CC1 and CC3 through introducing target fabric efficiency improvements through the design of proposed buildings to reduce carbon emissions. The DPD aligns with and should be read alongside Local Plan policy DM2 with regard the assessment of the viability of development to meet the policies of the DPD and development plan as a whole.

7. Energy Sources

Policy NZC2(B): Zero or Low Carbon Energy Sources and Zero Carbon Ready Technology

New development of one or more new dwellings (C3 or C4 use class) and/or 1,000sqm or more of new non-residential floorspace, hotels (C1 use class), or residential institutions (C2 use class) should demonstrate through an energy statement that additional renewable, zero and low carbon energy technologies have been provided on-site* to achieve the carbon reductions required by Policy NZC1 and achieve on-site net zero **regulated** operational carbon.

Where full compliance is not feasible or viable having regard to the type of development involved and its design, proposals must:

- demonstrate through the energy statement that additional renewable, zero and low carbon energy technologies have been provided to the greatest extent feasible and viable.
- incorporate 'zero carbon ready' (as opposed to immediately providing 'low/zero carbon') technologies.

*this may include off site existing or planned zero, low carbon or renewable energy generation or heat network provision where there is a direct off-grid connection to the development which has capacity to serve the development.

- 7.1 It is the Council's aspiration that by maximising the energy efficiencies achieved through NZC2(A), the energy demands of developments will be significantly reduced. NZC2(B) requires that the means of meeting residual energy demands is set out in an energy statement. This energy statement should consider all available zero or low carbon energy sources that could be incorporated or utilised so that the energy used in the development achieves the minimum carbon emissions. The Council will expect energy statements to address low carbon or renewable energy generation in the specific local context of each development. Options should explore:
- On site renewable energy and low carbon energy generation for individual buildings including solar energy and heat pumps and any other sources of energy/heat that may be applicable.
 - Direct, off grid connections to local offsite renewable energy sources such as solar farms or wind turbines.
 - Large scale sources of energy/heat such as a direct connection to low carbon heat networks.
- 7.2 Developers are expected to incorporate local renewable energy generation within schemes in line with the energy statement, as a way of reducing the offsetting requirements. Where large scale renewable or low carbon energy options may be appropriate (such as for residential schemes in excess of 150 dwellings), developers are advised to contact the Council to discuss data on appropriate sources of heat, existing schemes or plans that could support the development and other support that the Council or its partners may be able to offer.
- 7.3 The Government has set out its intention to ensure that new homes and buildings will not be built with fossil fuel heating, such as natural gas boilers. Given the Council's commitment to reducing carbon emissions across the District, we are seeking to accelerate the delivery of

this national ambition within Warwick District. As a result, the Council is expecting that energy sources avoid fossil fuels in their entirety.

- 7.4 This policy is written with the view that it is likely that heat pumps or near-zero-carbon heat networks will have already been deployed in the design to achieve the required initial 63% carbon reduction against Part L 2021. The policy therefore aims to encourage on-site or near-site renewable electricity generation. Warwick District Council recognises that not all sites will be suitable for large-scale wind and solar for reasons of grid constraints, shadow or heritage, in which case off-site renewables, partial compliance, or offsetting under NZC2(C) can be acceptable.
- 7.5 Zero carbon ready technology is that which is already available (such as heat pumps) and its transition to zero carbon is based on realistic current projections of the time-period in which its carbon will be eliminated. 'Zero carbon ready' heat technologies that rely on speculative future technological advances and use onsite fossil fuels meanwhile, will not be accepted.
- 7.6 'Zero carbon ready' technology does not include gas boilers that are marketed as 'hydrogen-ready' but will use fossil fuel gas for the foreseeable future. These should be avoided because there is no robust national or local timeline for transitioning the gas system onto hydrogen or other green gas at the time of writing, and current hydrogen production technology is vastly inefficient¹ (taking multiple units of electricity to produce each unit of hydrogen). It therefore is prudent to simply use the electricity as it is, rather than converting it to hydrogen.
- 7.7 Currently, the only proven heating technology with a realistic and time-bound projected transition to zero carbon is electricity, whether direct electric or heat pumps. This has a clear trajectory to zero carbon in the form of the national Treasury Green Book projections on electricity grid carbon. Nevertheless, the policy wording is designed to be flexible towards future technological innovation, for example if a low-carbon, non-wasteful way to produce hydrogen is developed, along with a realistic national timeline for converting the gas system away from fossil fuels.
- 7.8 Through the holistic approach to reducing carbon emissions by following the energy hierarchy and policies NZC2(A) and NZC2(B), should developments fail to achieve net zero on occupation, or are found to have emissions in excess of the set targets for emission reductions through performance gap monitoring, offsetting through Policy NZC2(C) will apply.
- 7.9 Where developments give rise to carbon emissions in excess of the targets in NZC1, following the application of policies NZC2(A) and NZC2(B), offsetting through NZC2(C) will apply. The offsetting calculation will be based on reasonable assumptions (including published national policy ambitions for renewable electricity) about future levels of carbon emissions associated with that energy source.
- 7.10 This policy supports and expands upon Local Plan policies DS3, SC0 and CC2 through the inclusion of low or zero carbon technologies to reduce carbon emissions from new buildings. The DPD aligns with and should be read alongside Local Plan policy DM2 with regard the assessment of the viability of development to meet the policies of the DPD and development plan as a whole.

¹ <https://www.newscientist.com/article/2186273-hydrogen-will-never-be-a-full-solution-to-our-green-energy-problems/>

8. Carbon Offsetting

Policy NZC2(C): Carbon Offsetting

Where a development proposal of one or more new dwellings (C3 or C4 use class) and/or 1,000sqm or more of new non-residential floorspace, hotels (C1 use class), or residential institutions (C2 use class) cannot demonstrate that it is net zero carbon, it will be required to address any residual carbon emissions by:

- a cash in lieu contribution to the District Council's carbon offsetting fund
and/or
- at the Council's discretion, a verified local off-site offsetting scheme. The delivery of any such scheme must be within Warwickshire or Coventry, guaranteed and meet relevant national and industry standards. If it is a nature-based carbon sequestration scheme, then it must be backed by the national government's Woodland Carbon Code initiative (or future replacement/ equivalent national scheme) and meet the Warwickshire ecosystem service market trading protocol.

Where full compliance is demonstrably not feasible having regard to the type of development involved and its design, proposals must offset any residual carbon emissions to the greatest extent viable.

Contributions to an offsetting scheme shall be secured through Section 106 Agreements and will be required to be paid prior to the occupation of the development.

The amount of carbon to be offset will be calculated according to the SAP or SBEM carbon emissions submitted in the energy statement required under policy NZC(1). This must then be multiplied to reflect emissions over a period of 30 years from completion. Where "zero-carbon ready" technology is proposed, associated carbon emissions should be calculated in accordance with the stated national trajectory for carbon reduction of the energy source (i.e. annual Treasury Green Book BEIS projections of grid carbon intensity or future national equivalent).

The carbon offset contribution amount will be calculated within the energy statement at the submission of the application. It must then be recalculated at completion and pre-occupation. Where assessment undertaken at completion shows that there is a performance gap between the design and the performance of the completed building, carbon offsetting contributions will be required to reflect any associated additional carbon emissions not accounted for at the point of determination of the planning application and an adjusted payment made if necessary.

The carbon offset price is the central figure from the [nationally recognised non-traded valuation of carbon](#), updated annually as part of the Treasury Green Book data by BEIS.

Funds raised through this policy will be ringfenced and transparently administered by the Council to deliver a range of projects that achieve measurable carbon savings as locally as possible, at the same average cost per tonne. The fund's performance will be reported in the Authority Monitoring report on: amount of funds spent; types of projects funded; amount of CO₂ saved.

¹ <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>

- 8.1 Offsetting should only be used where a developer has maximised on site carbon reductions through applying NZC2(A) and NZC2(B). Offsetting will only be acceptable where it is demonstrated that it is the only option available to enable necessary development to be brought forward. As such the Council considers offsetting to be an option of final resort. It has been estimated that it would take the planting of 160 trees to offset a 4 tonne carbon footprint.
- 8.2 Using the most up to date Standard Assessment Procedure (SAP) or SBEM, planning applications will be required to set out in full the anticipated annual operational carbon emissions from the development for each of the 30 years after completion. The sum of this will be the amount of carbon to be offset over the 30 year building life. The resulting financial contribution will be calculated as follows:
- The estimated amount of residual CO₂ emissions from the development over 30 years from the completion of the development, multiplied by the central carbon figure from the Treasury Green Book (data by BEIS) average carbon market price per tonne for the 12-month period preceding the completion of the development.
- 8.3 The carbon offset price of £245/tonne is the central figure for 2021 from the nationally recognised non-traded valuation of carbon¹, released annually as part of the Treasury Green Book data by BEIS. This is the same approach preceded in other local plan carbon offset schemes.
- 8.4 New development is expected to get as close as possible to zero-carbon on-site through fabric performance and the inclusion of renewable energy. Where residual carbon emissions are identified, the associated carbon emissions will be calculated in accordance with the stated national trajectories for the carbon reduction of the relevant energy source. As an example, if an electrical heating system based on supply from the national grid is utilised, the calculation of carbon emissions associated with this will be based on any published national government carbon reduction targets (including where possible a reduction trajectory) for the electricity grid. Where there are no published government targets, existing levels of carbon will be assumed unless robust evidence can be provided regarding future decarbonisation of the energy source.
- 8.5 Offset contributions will be paid into the Council's Carbon Offset Fund. Some carbon-saving interventions are more expensive while others will be cheaper, so the actual cost per tonne of carbon saved will vary between different projects. The Council's S106-based offset fund will support a portfolio of projects that deliver measurable carbon savings at an average cost per tonne equal to that paid per tonne by developers. This approach is preceded in other planning areas such as London.
- 8.6 This average cost of carbon savings delivered by the fund will consider the cost of fund administration, project identification and setup, and insurance against failure/reversal of delivered projects. A range of projects are being considered by Warwick District Council, that will deliver carbon-saving interventions that would otherwise not be deliverable with other available funds. Projects could include but are not limited to: renewable energy generation; energy retrofitting in existing buildings; large-scale tree planting. Projects will be delivered within Warwick District wherever possible but could include neighbouring authorities elsewhere in Warwickshire and Coventry and cross-border initiatives where there is a benefit to doing

¹ <https://www.gov.uk/government/publications/valuation-of-energy-use-and-greenhouse-gas-emissions-for-appraisal>

so (e.g. deliverability; economies of scale; social benefits). The same localism principles will be required in any alternative offsetting solution proposed by developers, whereby the Council will seek that the offsetting solution is delivered within Warwick District and/or delivers benefits to the district, and must contribute to securing a net zero carbon future for Warwick District.

- 8.7 Warwickshire County Council has developed the Warwickshire Ecosystem Trading Protocol (WESTP) which is a mechanism for carbon offsetting and trading based on nature based solutions. Local conditions for nature based solutions are detailed through the WESTP. The WESTP mandates that all compensation sites will be registered through the Woodland Carbon Code with additional requirements for securing woodland, and its management for a minimum of 100 years. Warwick District Council intend to utilise nature based solutions through the WESTP as its preferred carbon offsetting mechanism in the first instance. Other offsetting mechanisms may also be developed in the future.
- 8.8 The Council will prepare and maintain supplementary planning guidance setting out how contributions to the Carbon Offset Fund will be utilised to enable net-zero carbon, and how the Council's discretion will be exercised with regards to assessing the acceptability of any alternative off-site offsetting solutions that may be proposed by developers. This will include a list of projects to be funded and regularly reviewed in line with the Council's Climate Emergency Action Programme to ensure that there is transparency throughout the process.
- 8.9 The Carbon Offset fund will be separate to the Community Infrastructure Levy (CIL) and other funds and will be used to deliver carbon-saving interventions that would otherwise not be deliverable with other available funds. Monitoring of the funds and progress made by adopting this policy will be included in the Authority Monitoring Report produced annually and will include details of:
- The amount of carbon offset fund payments collected
 - The amount of carbon offset fund payments spent
 - Types of projects being funded
 - Amount of CO₂ offset and price.
- 8.10 This policy supports and expands upon Local Plan policy DS3 providing a mechanism reduce carbon emissions from new buildings (or offset) to deliver a low carbon economy and to support environmental sustainability. The DPD aligns with and should be read alongside Local Plan policies DM1 with regard to financial contributions towards carbon offsetting and policy DM2 with regard the assessment of the viability of development to meet the policies of the DPD and development plan as a whole. For the avoidance of doubt, offsetting funds shall be secured through a Section 106 Agreement and will be ringfenced, and such will be separate to any Community Infrastructure Levy CIL charges.

9. Embodied Carbon

Policy NZC3: Embodied Carbon

New major development should demonstrate in the energy statement or design statement how the embodied carbon of the proposed materials to be used in the development has been considered and reduced where possible, including with regard to the type, life cycle and source of materials to be used.

Proposals for development of 50 or more new dwellings and/or 5,000sqm or more of new non-residential floorspace should be accompanied by a whole-life assessment of the materials used.

- 9.1 Through the implementation of policies within this DPD the operational emissions from buildings will decrease, and therefore embodied carbon emissions will represent a greater proportion of the overall carbon from a development. Embodied carbon emissions can be as much as 50% of total emissions over a building's lifetime.
- 9.2 Warwick District Council recognises the importance of embodied carbon and the complexities of the calculation methods for the whole-life assessment of materials. Consideration was given to scales of development which could support an embodied carbon assessment, and this has been included in viability testing accordingly. Assessment of embodied carbon is therefore applied to a major development threshold as set out in the The Town and Country Planning (Development Management Procedure) (England) Order 2015 (as amended) with more detailed whole life carbon assessments for larger scale developments.
- 9.3 The materials used in development should use and manage resources as efficiently as possible accounting for the energy, carbon emissions and other environmental impacts arising from construction and end of life demolition and disposal. Use of environmental assessment methods such as RICS, BREEAM or HQM pre-assessments with reference to the BRE Green Guide would be suitable as such a statement. Additional guidance in terms of the type and scope of embodied carbon assessments will be included in Supplementary Planning Guidance to support the DPD .
- 9.4 This policy supports and expands upon Local Plan policy DS3 through the consideration and assessment of the embodied carbon of building materials to reduce carbon emissions from new buildings to deliver a low carbon economy and support environmental sustainability. In addition, Policy NZC3 should be read alongside Local Plan policy CC3 as embodied carbon assessment is a consideration within the BREEAM Very Good requirement of policy CC3 for major non-residential development. BREEAM assessment credits relating to embodied carbon may be used to demonstrate compliance with Policy NZC3.

10. Existing Buildings

Policy NZC4: Existing Buildings

All developments should demonstrate a consideration to sustainable construction and design in accordance with Local Plan Policy CC1 'Planning for Climate Change Adaptation'.

In addition, all development should consider alternatives to conventional fossil fuel boilers. This should be explored through a Low/Zero Carbon assessment of low carbon energy supply options within the submitted application documents.

Development proposals which would result in considerable improvements to the energy efficiency, carbon emissions and/or general suitability, condition and longevity of existing buildings will be supported, with significant weight attributed to those benefits.

The sensitive retrofitting of energy efficiency measures and the appropriate use of micro-renewables in historic buildings, including listed buildings, locally listed buildings and buildings within conservation areas will be encouraged, providing the special characteristics of the heritage assets are conserved in a manner appropriate for their significance.

- 10.1 This DPD aims to minimise carbon emissions resulting from new development to support the achievement of local and national carbon reduction targets. Existing buildings (residential and commercial) are estimated to contribute around 40% of carbon emissions across the District. Retrofitting the existing building stock therefore presents a significant opportunity to reduce the District's carbon deficit. It will often not be possible to retrofit existing buildings to the same level of fabric efficiency required for new buildings under Policy NZC1 and NZC2(A). Policy NZC4 therefore provides a positive approach to reducing carbon emissions in existing buildings through low carbon energy supply, energy efficiency measures and micro-renewables whilst recognising this needs to be sensitive in historic contexts.
- 10.2 For existing buildings an average heating energy demand of 40kWh/m/yr should be used as a target for proposals involving alterations, extensions and changes of use. Detailed guidance for existing buildings is provided by LETI's Climate Emergency Retrofit Guide⁸.
- 10.3 This policy supports and expands upon Local Plan policies DS3, SC0 and CC1 to promote the reduction of carbon emissions through the alteration and extension of existing buildings and in particular to promote the use of alternatives to conventional fossil fuel boilers in existing buildings.

⁸<https://www.leti.london/retrofit>

11. Viability

- 11.1 In preparing this DPD, the Council has undertaken a high-level viability assessment. This demonstrates that the majority of development types, in the majority of locations are viable.
- 11.2 Net zero carbon development that accords with this DPD will be required except where it can clearly be demonstrated that meeting all the requirements of this DPD will render a development proposal unviable.
- 11.3 Where this is the case, in line with Local Plan Policy DM2, applicants should discuss viability concerns with the Local Planning Authority at the earliest possible stage in the development process and any viability assessment will be independently reviewed. Where this demonstrates that the viability of a proposal is threatened, discussions should take place with the Local Planning Authority on a case-by-case basis to consider the implications.

12. Warwick District Local Plan 2011–2029: Policies superseded or amended by this DPD

12.1 The following Local Plan policies will be amended by this DPD:

- Expands Policy CC3: Building Standards and other Sustainability Requirements
- Expands Policy SC0 Sustainable Communities
- Expands Policy BE1 Layout and Design
- Expands Policy HS1 Healthy, Safe and Inclusive Communities
- Expands Policy CC1 Planning for Climate Change Adaptation
- Expands Policy CC2 Planning for Renewable Energy and Low Carbon Generation

12.2 The 2008 Sustainable Buildings SPD is superseded.

Glossary

Air-Source Heat Pump: A type of heat pump which captures the latent heat in the air outside a building and uses that to help heat a home. Some air-source heat pumps can also be used for cooling in the summer.

Anthropogenic greenhouse emissions: Greenhouse gas emissions resulting from human activities.

Biomass: Living organisms and dead matter such as wood, leaves etc. used as a fuel or energy source. These fuels are considered renewable as long as the vegetation producing them is maintained or replanted, such as firewood, alcohol fermented from sugar, and combustible oils extracted from soy beans. Their use in place of fossil fuels cuts greenhouse gas emissions because the plants that are the fuel sources capture carbon dioxide from the atmosphere.

Carbon deficit: The amount by which carbon emitted exceeds carbon sequestered. If there is no carbon deficit, then 'net zero' has been achieved.

Carbon dioxide (CO₂): Carbon dioxide is a gas which occurs naturally in the atmosphere, and is produced as a by-product of human activity such as burning fossil fuels to generate electricity and power vehicles. It is the main greenhouse gas created by combustion.

Carbon footprint: A measure of the impact that activities, people and businesses have on the environment in terms of the amount of greenhouse gases produced, measured in units of carbon dioxide.

Carbon neutral: Carbon neutral refers to a process, energy source, material, or product that, when factoring everything that goes into it, neither adds to nor reduces the amount of CO₂ in the atmosphere.

Carbon offsetting: To help become carbon neutral, activities such as tree planting can off-set carbon-producing activities such as the burning of fossil fuels. Trees lock in carbon.

Carbon sequestration: The removal or storage of carbon in a place (a sink) where it will remain. Types of sequestration include 'geological' where CO₂ is captured and buried underground and 'biological' where CO₂ is absorbed during the growth of plants and trees.

Climate change adaptation: Adjustments to natural or human systems in response to actual or expected climatic factors or their effects (including from changes in rainfall and rising temperatures) which moderate harm or exploit beneficial opportunities for climate change mitigation.

Climate change mitigation: Action to reduce the impact of human activity on the climate system, primarily through reducing greenhouse gas emissions.

Climate Emergency Declaration: An action taken by governments and scientists to acknowledge humanity is in a climate emergency. Warwick District Council declared a climate emergency in February 2020.

Combined heat and power (CHP): An efficient technology for generating electricity and heat together. A CHP plant is an installation generating usable heat and power simultaneously (usually electricity) in a single process. The heat generated in the process is utilised via suitable heat recovery equipment for a variety of purposes including industrial processes and community heating.

Decarbonisation: The process of replacing carbon-emitting processes with carbon-neutral processes. For example, the national energy grid is expected to decarbonise over time as coal and gas fired power stations are replaced with renewable energy sources.

Development Plan Documents (DPDs): DPDs are statutory component parts of the local development framework, which can introduce new policy to sit alongside the Local Plan. DPDs are formally consulted on and tested for soundness at an examination in public.

Embodied carbon / embodied energy (Carbon Capital): All the carbon / energy required to grow, harvest, extract, manufacture, refine, process, package, transport, install and dispose of a particular product or building material.

Energy efficiency: Using less energy to provide the same level of energy service. Along with renewable energy, energy efficiency is one of the twin pillars of sustainable energy.

Fabric First: A 'fabric first' approach to building design involves maximising the performance of the components and materials that make up the building fabric itself, before considering the use of mechanical or electrical building services systems.

Feasible: or feasibility refers to whether a matter is capable of being done or carried out. When 'feasible' is included within this document it refers to the physical nature of that requirement and whether this can be incorporated into the design of a development. It does not apply to any financial consideration which is dealt with separately under 'viability'.

Fossil fuels: Coal, oil and natural gas which produce carbon dioxide when burnt; responsible for global warming and climate change.

GHA/ NEF: Good Homes Alliance (GHA) support professionals through the Building Performance Network and provide guidance and toolkits to improve the quality and performance of buildings, including the Assured Performance Process originally developed by National Energy Foundation (NEF).

Geothermal Energy: Energy found in the form of heat beneath the ground. It is usually only a viable source of power in areas near tectonic plate boundaries.

Greenhouse gases: Gases in the atmosphere that absorb the earth's thermal infra-red radiation. Scientists believe that greenhouse gases resulting from human activity are causing the earth's climate to change, and this is now a generally accepted view.

Ground source heat pump: A type of heat pump which captures the latent heat from the ground and uses that to help heat a home.

Heat exchanger: A system used to transfer heat between two or more fluids. Heat exchangers are used in both cooling and heating processes.

Heat pump: A device that moves heat from a low temperature heat source to a higher temperature heat sink. Examples include ground source heat pumps, air to air heat pumps, refrigerators and air conditioners.

Mitigation: Intervention to attempt to reduce the negative impact of human activity, or to balance the negative impact with positive actions elsewhere.

Net zero carbon: Net zero refers to achieving a balance between the amount of greenhouse gas emissions produced and the amount removed from the atmosphere.

Nitrogen oxides: Nitrogen Oxide and Nitrogen Dioxide are collectively known as Nitrogen Oxides. Nitrogen Oxides are primarily produced as a result of the combustion process, typically from motor vehicles and power stations. They are one of the precursors for photochemical ozone formation as well as being injurious to human health.

Operational energy: Operational energy comprises regulated and unregulated energy consumption. The regulated energy is building energy consumption resulting from the specification of controlled, fixed building services and fittings, including space heating and cooling, hot water, and ventilation while the unregulated energy is the energy consumption that is not controlled by Building Regulations, including, but not limited to, energy consumption from IT equipment, lifts, and appliances.

Passive design: A design strategy that optimises a building's form, fabric and orientation to make the most of natural sources of heating, cooling and ventilation, to reduce the energy usage in operation.

Passivhaus standard: A construction standard for all buildings which emphasises high levels of insulation and airtightness, minimal thermal bridging, use of solar and internal heat gains and tightly controlled ventilation. Calculation of Passivhaus standards is done through Passivhaus Planning Package (PHPP).

Pollution: Anything that affects the quality of land, air, water or soils, which might lead to an adverse impact on human health, the natural environment or general amenity. Pollution can arise from a range of emissions, including smoke, fumes, gases, dust, steam, odour, noise and light.

Power Purchase Agreements: a contractual agreement between energy buyers and sellers. They come together and agree to buy and sell an amount of energy which is or will be generated by a renewable asset. PPAs are usually signed for a long-term period between 10-20 years.

R-value: The R-value is a measure of resistance to heat flow through a given thickness of material. So the higher the R-value, the more thermal resistance the material has and therefore the better its insulating properties. The R-value is calculated by using the formula $R = l / \lambda$ Where: l is the thickness of the material in metres and λ is the thermal conductivity in W/mK. The R-value is measured in metres squared Kelvin per Watt (m²K/W). For example the thermal resistance of 220mm of solid brick wall (with thermal conductivity $\lambda=1.2$ W/mK) is 0.18 m²K/W.

Regulated Carbon Emissions: these emissions are those from fixed building services and fittings, for example: space heating, cooling, hot water, ventilation and lighting and are based on average assumptions of use. For the avoidance of doubt they do not include 'plug in' appliances.

Renewable and low carbon energy: Includes energy for heating and cooling as well as generating electricity. Renewable energy covers those energy flows that occur naturally and repeatedly in the environment – from the wind, the fall of water, the movement of the oceans, from the sun and also from biomass and deep geothermal heat. Low carbon technologies are those that can help reduce emissions (compared to conventional use of fossil fuels).

Renewable resources: Resources that are capable of regeneration at a rate greater than their rate of depletion.

Residual Carbon: The remaining emissions after these have been reduced as far as possible through attention to energy efficiency and use of renewable energy.

Retrofitting: Applying new components to existing buildings, for example to improve energy efficiency or the use of renewable energy.

Standard Assessment Procedure (SAP): is the Government recognised methodology for calculating CO₂ emissions in residential buildings. Versions of SAP calculations are updated by the Government and the most up to date calculation should be used.

Simplified Building Energy Model (SBEM): is the Government recognised methodology for calculating CO₂ emissions in non-residential buildings. Versions of SAP calculations are updated by the Government and the most up to date calculation should be used.

Sink: Any process, activity or mechanism which removes a greenhouse gas. Forests and other vegetation are considered sinks because they remove carbon dioxide through photosynthesis.

Smart meters: Smart meters give real-time information on energy use. Through an in-home display, usage and cost can be tracked giving the consumer a picture of how they are using energy and the total cost.

Solar energy: The use of energy from the sun, captured either by a solar photovoltaic panel, or a solar thermal system that concentrates solar energy to heat water (or other medium) that then generates steam which is converted into electrical power.

Supplementary Planning Documents (SPDs): Documents that add further detail to the policies in the Local Plan. They can be used to provide further guidance for development on specific sites, or on particular issues, such as design. SPDs are capable of being a material consideration in planning decisions but are not part of the development plan.

Sustainable development: Resolution 42/187 of the United Nations General Assembly defines sustainable development as meeting the needs of the present without compromising the ability of future generations to meet their own needs. The UK Sustainable Development Strategy Securing the Future sets out five 'guiding principles' of sustainable development: living within the planet's environmental limits; ensuring a strong, healthy and just society; achieving a sustainable economy; promoting good governance; and using sound science responsibly.

Sustainable transport modes: Any efficient, safe and accessible means of transport with overall low impact on the environment, including walking and cycling, electric, low and ultra-low emission vehicles, car sharing and public transport.

Unregulated Carbon Emissions: Unregulated carbon emissions result from the building energy consumption from process and systems that are not 'controlled' by Building Regulations. For example, this could include energy consumption from sources such as IT equipment, lifts, external lighting, cooking, audio-visual equipment and other appliances.

Viability: When 'viable' is included within this document it refers to financial viability. This is an objective financial viability test of the ability of a development project to meet its costs including the cost of planning obligations, whilst ensuring an appropriate site value for the landowner and a market risk adjusted return to the developer in delivering that project. Essentially it is the ability to attract investment and business.

Water Vapour: Water in a vaporous form especially when below boiling temperature and diffused (as in the atmosphere).

Zero carbon building: A building with no net carbon emissions resulting from its operation over the space of a year.

Zero carbon ready: Buildings built to a standard such that no further energy efficiency retrofit work will be necessary to enable them to become zero carbon as the electricity grid continues to decarbonise.

APPENDIX 1: Policy Context

International

The Paris Agreement:

The Paris Agreement (<https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>) under the United Nations Framework Convention on Climate Change, also called Paris Climate Agreement or COP21, international treaty, was adopted in December 2015, and aimed to reduce the emission of gases that contribute to global warming.

The Paris Agreement continued the process started at the **1992 Earth Summit** (<https://sustainabledevelopment.un.org/milestones/unced>) where countries joined the international treaty, the 'United Nations Framework Convention on Climate Change' (<https://unfccc.int/process-and-meetings/the-convention/what-is-the-united-nations-framework-convention-on-climate-change>). The objective of this treaty was to 'stabilise greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic (human) interference with the climate system'.

Energy Performance of Buildings Directive:

Both the Energy Performance of Buildings Directive 2010/31/EU (EPBD) (https://eur-lex.europa.eu/legal-content/EN/ALL;ELX_SESSIONID=FZMjThLzfxmmMCQGp2Y1s2d3TjwD8QS3pqdkhXZbwqGwlgY9KN!2064651424?uri=CELEX:32010L0031) and the Energy Efficiency Directive 2012/27/EU (<https://eur-lex.europa.eu/legal-content/EN/TXT/?qid=1399375464230&uri=CELEX:32012L0027>) were amended, as part of the Clean energy for all Europeans package, in 2018 and 2019 (https://energy.ec.europa.eu/topics/energy-strategy/clean-energy-all-europeans-package_en) The European Union (EU) Directive on the energy performance of buildings was intended to improve the energy efficiency of buildings, reduce carbon emissions and the impact of climate change

National

In December 2006, the then Labour government committed that from 2016 all new homes would be 'zero carbon'. This introduced the **Code for Sustainable Homes** (<https://www.breeam.com/discover/technical-standards/homes/>)

The '**Building a Greener Future: Policy Statement**' (<https://www.thenbs.com/PublicationIndex/documents/details?Pub=DCLG&DocID=283171>) in 2007 proposed tightening of the building regulations to achieve the 2016 goal, first by 25% in 2010 and then by 44% in 2013. The Labour budget in 2008 announced a further intention that all new non-domestic buildings should also be zero carbon from 2019.

The current **Regulations are the Energy Performance of Buildings (England and Wales) Regulations 2012** (<https://www.legislation.gov.uk/uksi/2012/3118/contents/made>) which were last amended in 2018.

The future of all such directives for the UK and therefore the regulations, is currently unknown as a result of the United Kingdom's withdrawal from the European Union (Brexit).

Climate Change Act 2008:

(<https://www.legislation.gov.uk/ukpga/2008/27/contents>)

The act originally set up a national target for the reduction of greenhouse gas emissions for the year 2050. The target of reducing carbon emissions by 80% compared to 1990 levels by 2050, with a reduction of at least 34% by 2020 was supported by a strategy to achieve it set out in The Carbon Plan published in December 2011. The Act also set up the independent statutory Committee on Climate Change, an advisory body to government.

The Decarbonisation and Economic Strategy Bill:

(<https://services.parliament.uk/bills/2019-21/decarbonisationandeconomicstrategy.html>)

Published in September 2019 was expected to provide a framework to decarbonise the UK economy. This bill failed to complete its passage through Parliament before the end of the session which means the Bill will make no further progress.

The Infrastructure Bill, 2014:

(<https://commonslibrary.parliament.uk/research-briefings/sn06909/>)

The Infrastructure Bill, published by the Department for Transport, proposed re-setting the zero-carbon home standard at Level 5 of the Code for Sustainable Homes, but allowing developers to build to Level 4 by using allowable solutions to achieve Level 5, but controversially making small sites of fewer than 10 dwellings exempt from the allowable solutions option. This bill received royal assent and became law in 2015 as the Infrastructure Act 2015.

Fixing the Foundations, creating a more prosperous nation, 2015:

(<https://www.gov.uk/government/publications/fixing-the-foundations-creating-a-more-prosperous-nation>)

The report stated, "The government does not intend to proceed with the zero carbon Allowable Solutions carbon offsetting scheme, or the proposed 2016 increase in on-site energy efficiency standards, but will keep energy efficiency standards under review, recognising that existing measures to increase energy efficiency of new buildings should be allowed time to become established."

The industry viewed this as a massively retrograde step, putting at risk the government's commitment to controlling climate change and ending the zero carbon homes project.

Housing and Planning Bill, 2015:

(<https://commonslibrary.parliament.uk/research-briefings/cbp-7331/>)

The Bill scrapped the zero carbon homes initiative and in spite of attempts by the House of Lords to reintroduce it in 2016, the requirement was dropped. The Chancellor's budget speech in March 2019 however, stated that from 2025, new homes may not be connected to the gas grid for the purposes of heating. This bill received royal assent and became law in 2016 as the Housing and Planning Act 2015.

The National Adaptation Programme and the third strategy for climate adaptation reporting, published 19 July 2018:

(https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/727252/national-adaptation-programme-2018.pdf)

Looking at the role of local authorities in the resilience agenda, the report states "Local government has obligations that contribute to resilience. These include flood risk management, under the Flood and Water Management Act 2010, and commitments to prepare and plan for emergencies under the Civil Contingencies Act 2004. Local Planning Authorities (LPAs) are also required under the Planning Act 2008 to adopt proactive strategies to mitigate and adapt to climate change." The stated vision being, "Local Government plays a central role in leading and supporting local places to become more resilient to a range of future risks and to be prepared for the opportunities from a changing climate".

National Planning Policy Framework (NPPF), July 2021:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1005759/NPPF_July_2021.pdf The NPPF originally published in 2012 and revised in July 2018, February 2019 and updated in July 2021 and addresses the issue of sustainability by promoting

sustainable development and encouraging sustainable transport. The NPPF addresses climate change and directs meeting the challenge of flooding and coastal change and adapting accordingly. It also directs that plans should include policies that move toward a low carbon economy.

It goes on to say in paragraph 9, that "These objectives should be delivered through the preparation and implementation of plans and the application of the policies in this Framework; they are not criteria against which every decision can or should be judged. Planning policies and decisions should play an active role in guiding development towards sustainable solutions, but in doing so should take local circumstances into account to reflect the character, needs and opportunities of each area."

The NPPF addresses the need for the planning system to address climate change through Chapter 14, notably paragraphs 152, 153, 154 and 157. Local requirements for sustainability of buildings should reflect Government policy for national technical standards in accordance with Paragraph 154.

This DPD aims to address that local element and deliver at a local level while contributing to national targets.

Planning Practice Guidance, <https://www.gov.uk/guidance/climate-change> published in 2014 and updated in 2019 states that:

"Addressing climate change is one of the core land use planning principles which the National Planning Policy Framework expects to underpin both plan-making and decision-taking. To be found sound, Local Plans will need to reflect this principle and enable the delivery of sustainable development in accordance with the policies in the NPPF. These include the requirements for local authorities to adopt proactive strategies to mitigate and adapt to climate change in line with the provisions and objectives of the Climate Change Act 2008, and co-operate to deliver strategic priorities which include climate change."

Latest Supporting Information

In June 2019, the Prime Minister, committed the government to reducing UK greenhouse gas emissions to net zero by 2050, in a review of the Climate Change Act of 2008 (<https://www.legislation.gov.uk/ukdsi/2019/9780111187654>), to tackle climate change. This introduces tougher measures to the UK's current target to reduce emissions by 80% by 2050.

This proposal is designed to help meet an international target of not exceeding a 0.5°C temperature rise by 2100; the rise considered to be the dangerous climate threshold.

The Building Regulations (as updated at 2016):

(<https://www.gov.uk/government/publications/building-regulations-c-amendment-regulations-2016>)

Part L: Conservation of fuel and power, The Building Regulations, sets out how the regulations will control aspects of new buildings in relation to carbon indexing.

Part L also sets requirements for Carbon Index ratings.

The Future Homes Standard:

(<https://www.gov.uk/government/consultations/the-future-buildings-standard>)

The Future Homes Standard updated Building Regulations Part L (conservation of fuel and power), Part F (ventilation) and introduced Part O (overheating) to ensure that all new homes built from 2025 will produce 75-80% less carbon emissions than homes delivered under 2013 Building Regulations. The updated regulations also sets an interim uplift in Building Regulations to reduce carbon emissions in new houses by 30% and new buildings by 27% from June 2022

Environment Act 2021:

(<https://services.parliament.uk/bills/2019-21/environment.html>)

The Environment Act was enacted in November 2021 and sets clear regulatory targets for the recovery of nature in four priority areas: air quality, biodiversity, water and waste, and a target to reverse the decline in species abundance by 2030. The Act creates the requirement for a statutory Environmental Improvement Plan, as set out in 'A Green Future: Our 25 Year Plan to Improve the Environment'. The legislation also establishes an Office for Environmental Protection which will have scrutiny, advice and enforcement functions.

The National Design Guide; Planning practice guidance for beautiful, enduring and successful places, 2021:

(<https://www.gov.uk/government/publications/national-design-guide>)

Published by the Ministry of Housing, Communities and Local Government, The National Planning Policy Framework makes clear that "creating high quality buildings and places is fundamental to what the planning and development process should achieve". The National Design Guide, and the National Model Design Code and Guidance Notes for Design Codes "illustrate how well-designed places that are beautiful, healthy, greener, enduring and successful can be achieved in practice. It forms part of the Government's collection of planning practice guidance and should be read alongside the separate planning practice guidance on design process and tools".

Local

Warwick District Local Plan 2011-2029 (adopted Sept 2017):

(https://www.warwickdc.gov.uk/info/20410/new_local_plan)

The adopted Local Plan was prepared at a time when the NPPF was a recently published document which directed planning authorities to prepare plans for sustainable development. Policies were therefore written with this very much in mind. One of the policy areas considered was "climate change mitigation and adaptation, and the conservation and enhancement of the natural and historic environment, including landscape."

Identified issues included:

- The threat of flooding to homes and businesses in some areas, and the concern that flooding events will increase because of climate change
- Pressure for new development and climate change threatening the high-quality built and natural environments in the district, particularly in historic areas

These policies aim to protect those elements of the environment that support and generate climate change resilience and include the more strategic objectives that are expected to contribute towards sustainable development and adaptation. There are policies on climate change and water conservation. This DPD expands on Local Plan policies and introduce standards in development which will positively contribute to the new targets set by central government since the Local Plan was adopted.

There is an adopted Sustainable Buildings SPD, dated December 2008. This is now very much in need of updating and the DPD will replace it in due course.

Neighbourhood Development Plans (NDP):

(https://www.warwickdc.gov.uk/info/20444/neighbourhood_plans)

NDPs become part of the local development framework when they are made and policies carry the

weight of those in the Local Plan. Sustainable development and climate change issues can and should also be addressed in policies in NDPs and any relevant adopted policies will need to be complied with when planning applications are submitted.

Relevant Local Plan Objectives:

The objectives of the Local Plan have sustainability at their heart. The objectives provide the framework to deliver sustainable development by balancing social, economic and environmental imperatives and where possible enhancing all three.

- a) Providing sustainable levels of growth in the District.
- b) Providing well-designed new developments that are in the right location and address climate change
- c) Enabling the District's infrastructure to improve and support growth

Related Supplementary Planning Documents and Guidance

The following supplementary planning documents and guidance are related to this DPD:

Climate Emergency Action Programme – Main Report

<https://estates8.warwickdc.gov.uk/CMIS/Document>

Air Quality SPD:

https://www.warwickdc.gov.uk/downloads/file/5043/air_quality_spd

Public Open Space SPD:

https://www.warwickdc.gov.uk/downloads/file/5516/public_open_space_spd

Residential Design Guide SPD:

https://www.warwickdc.gov.uk/downloads/file/4782/residential_design_guide

Biodiversity Offsetting:

<https://www.warwickshire.gov.uk/biodiversityoffsetting>

<https://api.warwickshire.gov.uk/documents/WCCC-863-793>

Climate Emergency Action programme

Details of the Council's CEAP are available here

<https://estates8.warwickdc.gov.uk/CMIS/Document.ash>:



Warwick District Council
Town Hall, Parade
Royal Leamington Spa
CV32 4AT



APPENDIX 3 – MAIN MODIFICATIONS

The modifications below are expressed either in the conventional form of strikethrough for deletions and underlining for additions of text, or by specifying the modification in words in italics. Modifications in bold relate to changes to policies.

The page numbers and paragraph numbering below refer to the submission Development Plan Document (SUB1) and do not take account of the deletion or addition of text set out and otherwise accepted in the main modifications in this schedule.

Ref	Chapter / Policy	Paragraph Number or Page Number	Main Modification
MM01	5. Overarching Strategy: Achieving Net Zero Carbon Development	Page 21 New Para 5.12	<u>This policy supports and expands upon Local Plan policies DS3, SC0, HS1, BE1, CC1, CC2 and CC3 through introducing standards for development which will positively contribute to reducing carbon emissions against local and national targets. The DPD aligns with, and should be read alongside, Local Plan policy DM1 with regard to financial contributions towards carbon offsetting and policy DM2 with regard the assessment of the viability of development to meet the policies of the DPD and development plan as a whole.</u>
MM02	6. Reducing Energy Demands: Energy Efficient Buildings	Page 24 New Para 6.11	<u>This policy supports and expands upon Local Plan policies DS3, SC0, HS1, BE1, CC1 and CC3 through introducing target fabric efficiency improvements through the design of proposed buildings and reduce carbon emissions. The DPD aligns with, and should be read alongside, Local Plan policy DM2 with regard the assessment of the viability of development to meet the policies of the DPD and the development plan as a whole.</u>
MM03	7. Energy Sources	Page 27 New Para 7.10	<u>This policy supports and expands upon Local Plan policies DS3, SC0 and CC2 through the inclusion of low or zero carbon technologies to reduce carbon emissions from new buildings. The DPD aligns with, and should be read alongside, Local Plan policy DM2 with regard the assessment of the viability of development to meet the policies of the DPD and the development plan as a whole.</u>
MM04	8. Carbon Offsetting	Page 31 Para 8.7	In the event that Warwickshire County Council or Warwick District Council operate a local carbon market that gives value to the growth and enhancement of local natural assets, this will be the preferred scheme.

Ref	Chapter / Policy	Paragraph Number or Page Number	Main Modification
			<p><u>Warwickshire County Council has developed the Warwickshire Ecosystem Trading Protocol (WESTP) which is a mechanism for carbon offsetting and trading based on nature-based solutions.</u></p> <p><u>Local conditions for nature-based solutions are detailed through the WESTP. The WESTP mandates that all compensation sites will be registered through the Woodland Carbon Code with additional requirements for securing woodland, and its management for a minimum of 100 years.</u></p> <p><u>Warwick District Council intend to utilise nature-based solutions through the WESTP as its preferred carbon offsetting mechanism in the first instance. Other offsetting mechanisms may also be developed in the future.</u></p>
MM05	8. Carbon Offsetting	Page 31 New Para 8.10	<p><u>This policy supports and expands upon Local Plan policy DS3 providing a mechanism reduce carbon emissions from new buildings (or offset) to deliver a low carbon economy and to support environmental sustainability. The DPD aligns with and should be read alongside Local Plan policies DM1 with regard to financial contributions towards carbon offsetting and policy DM2 with regard the assessment of the viability of development to meet the policies of the DPD and development plan as a whole. For the avoidance of doubt, offsetting funds shall be secured through a Section 106 Agreement and will be ringfenced, and such will be separate to any Community Infrastructure Levy (CIL) charges.</u></p>
MM06	9. Embodied Carbon	Page 33 New Para 9.4	<p><u>This policy supports and expands upon Local Plan policy DS3 through the consideration and assessment of the embodied carbon of building materials to reduce carbon emissions from new buildings to deliver a low carbon economy and support environmental sustainability. In addition, Policy NZC3 should be read alongside Local Plan policy CC3 as embodied carbon assessment is a consideration within the BREEAM Very Good requirement of policy CC3 for major non-residential development. BREEAM assessment credits relating to embodied carbon may be used to demonstrate compliance with Policy NZC3.</u></p>

Ref	Chapter / Policy	Paragraph Number or Page Number	Main Modification
MM07	10. Existing Buildings	Page 35 New Para 10.3	<u>This policy supports and expands upon Local Plan policies DS3, SC0 and CC1 to promote the reduction of carbon emissions through the alteration and extension of existing buildings and in particular to promote the use of alternatives to conventional fossil fuel boilers in existing buildings.</u>
MM08	1. The Local Context	Page 7 Para 1.3.1	<p><u>This DPD aims to focus on minimising carbon emissions from existing and new buildings within the District to support the achievement of national and local carbon reduction targets.</u></p> <p>Objective of DPD</p> <p>In achieving this aim, the DPD will ensure that new development does not add to the District's carbon deficit and will therefore ensure that the significant cost of retrofitting buildings to achieve net zero carbon does not increase.</p> <p><u>To work towards this aim, the DPD is designed to ensure that new development's contribution to the District's carbon deficit is minimised and that new homes do not add to the significant number of existing buildings in the District that will need costly and disruptive retrofit as part of the local and national transition to achieve net zero carbon. By bringing forward performance standards equivalent to the Future Homes Standard (two years in advance of its national introduction) the new homes should not need future retrofit, and by collecting carbon offset payments the DPD will raise funds to deliver other vital but currently underfunded actions necessary for the national and local transition to net zero – such as additional renewable energy, retrofit of other existing buildings, or creation of woodland.</u></p>
MM09	4. Aims and Objectives	Page 16 Para 4.1.2	<p>In achieving this aim, the DPD will ensure that new development does not add to the District's carbon deficit and will therefore ensure that the significant cost of retrofitting buildings to achieve net zero carbon does not increase.</p> <p><u>To work towards this aim, the DPD is designed to ensure that new development's contribution to the District's carbon deficit is minimised and that new homes do not add to</u></p>

Ref	Chapter / Policy	Paragraph Number or Page Number	Main Modification
			<u>the significant number of existing buildings in the District that will need costly and disruptive retrofit as part of the local and national transition to achieve net zero carbon. By bringing forward performance standards equivalent to the Future Homes Standard (two years in advance of its national introduction) the new homes should not need future retrofit, and by collecting carbon offset payments the DPD will raise funds to deliver other vital but currently underfunded actions necessary for the national and local transition to net zero – such as additional renewable energy, retrofit of other existing buildings, or creation of woodland.</u>
MM10	4. Aims and Objectives	Page 16 Para 4.2.1 Objective 1	Objective 1: To provide a clear policy framework to enable developers to understand the requirements for planning proposals to ensure new buildings are planned and constructed to have net zero <u>regulated</u> carbon in operation.
MM11	4. Aims and Objectives	Page 16 Para 4.2.2 Objective 2	Objective 2: To ensure practical and viable low carbon building standards that can be applied to new <u>and existing</u> buildings.
MM12	5. Overarching Strategy: Achieving Net Zero Carbon Development	Page 19 Para 5.2	This strategy has been designed to deliver the objectives set out in section 4 above. The focus is on providing a practical and viable approach to deliver new development which is net zero carbon in operation <u>in relation to regulated operational energy</u> —in other words the net zero carbon emissions will occur following completion of the development.
MM13	5. Overarching Strategy: Achieving Net Zero Carbon Development	Page 19 Para 5.6	3: Carbon Offsetting. Developments that result in residual operational carbon emissions having incorporated stage 1 and stage 2, will be subject to carbon offsetting requirements to bring the total operational carbon emissions (<u>regulated energy</u>) to net zero.

Ref	Chapter / Policy	Paragraph Number or Page Number	Main Modification
MM14	7. Energy Sources Policy NZC2(B)	Page 26 Policy NZC2(B)	New development of one or more new dwellings (C3 or C4 use class) and/or 1,000sqm or more of new non-residential floorspace, hotels (C1 use class), or residential institutions (C2 use class) should demonstrate through an energy statement that additional renewable, zero and low carbon energy technologies have been provided on-site* to achieve the carbon reductions required by Policy NZC1 and achieve on-site net zero regulated operational carbon wherever possible.
MM15	12. Warwick District Local Plan 2011 – 2029: Policies superseded or amended by this DPD	Page 37 Para 12.1	<p>12.1 The following Local Plan policies will be superseded or amended by this DPD:</p> <ul style="list-style-type: none"> • <u>Expands Policy CC3: Building Standards and other Sustainability Requirements</u> is superseded
MM16	3. The Planning Policy Context	Page 14 Para 3.3.4	<p>There are policies on climate change and water conservation. However, it should be noted that the Examination of the adopted Local Plan took place within the context of a Written Ministerial Statement setting out an expectation that local planning authorities should not set energy efficiency standards for new homes higher than the energy requirements of Level 4 of the Code for Sustainable Homes. This meant that the draft policy relating to sustainable homes was removed from the Plan prior to adoption. Following adoption, restriction on the ability of local authorities to prepare local building standards policies was lifted and thus provides the opportunity to prepare a DPD to do this. This DPD replaces and expands on relevant Warwick District Local Plan 2011-2029 policies and introduces standards for development which will positively contribute to the new targets set by both local and central government since the Local Plan was adopted.</p> <p><u>Local Plan policies to be expanded by this DPD are as follows:</u></p>

Ref	Chapter / Policy	Paragraph Number or Page Number	Main Modification
			<ul style="list-style-type: none"> • <u>Policy SC0: Sustainable Communities</u> • <u>Policy BE1: Layout and Design</u> • <u>Policy HS1: Healthy, Safe and Inclusive Communities</u> • <u>Policy CC1: Planning for Climate Change Adaptation</u> • <u>Policy CC2: Planning for Renewable Energy and Low Carbon Generation</u> • <u>Policy CC3: Building Standards and other Sustainability Requirements</u>
MM17	3. The Planning Policy Context	Page 14 Para 3.3.5	<p>The Warwick District Local Plan 2011 –2029 forms the framework within which developments are expected to conform. The Local Plan already contains policies which deal with aspects of climate change such as adaptation. This DPD should be used alongside the Local Plan and forms part of the development plan for the area. It carries equal weight and where policies set higher standards, these will take precedence and will further meet the Local Plan Objectives. <u>The relationship between each of the policies in this DPD and the Local Plan policies is detailed for each policy in the supporting text.</u></p>
MM18	3. The Planning Policy Context	Page 14 Para 3.3.6	<p>There is an adopted Sustainable Buildings SPD, dated December 2008. This is now very much in need of updating and the DPD will supersede it upon adoption. <u>To assist the implementation of the DPD policies, the Council will also provide supplementary guidance alongside the DPD, including on the contents of Energy Statements.</u></p>
MM19	8. Carbon Offsetting	Page 31 Para 8.9	<p><u>The Carbon Offset fund will be separate to the Community Infrastructure Levy (CIL) and other funds and will be used to deliver carbon-saving interventions that would otherwise not be deliverable with other available funds.</u> Monitoring of the funds and progress made by adopting this policy will be included in the Authority Monitoring Report produced annually and will include details of:</p> <ul style="list-style-type: none"> • The amount of carbon offset fund payments collected • The amount of carbon offset fund payments spent • Types of projects being funded • Amount of CO2 offset and price.

Ref	Chapter / Policy	Paragraph Number or Page Number	Main Modification
MM20	9. Embodied Carbon	Page 33 Para 9.3	<p>The materials used in development should use and manage resources as efficiently as possible accounting for the energy, carbon emissions and other environmental impacts arising from construction and end of life demolition and disposal. Use of environmental assessment methods such as <u>RICS</u>, BREEAM or HQM pre-assessments with reference to the BRE Green Guide would be suitable as such a statement. <u>Additional guidance in terms of the type and scope of embodied carbon assessments will be included in Supplementary Planning Guidance to support the DPD.</u></p>

APPENDIX 4: Additional Modifications

**Schedule of Additional Modifications to the Published Submission Version of
the Warwick Net Zero Carbon DPD (August 2022)**

Warwick District Council

May 2023

The following format has been used to denote the modifications:

Underlined bold text = new text proposed for policy compared to the submission version

~~Strikethrough text~~ = text proposed for removal compared to the submission version

Underlined text = new text proposed for justification text compared to the submission version.

Such modifications have been set out in the third column of the following table with reasons for the changes set out in the final column.

Schedule of Proposed Additional Modifications

This document comprises a schedule of proposed additional (minor) modifications to the NetZero Carbon DPD. Minor changes to the DPD involve rectifying typographical errors and providing factual clarifications to existing wording in the DPD.

These have been brought to the attention of the Council through representations made at the Regulation 19 stage. Additional changes identified through the examination have also been identified and are presented in this schedule also.

Additional Modifications

Modification Number	Plan Reference	Proposed Additional Modification	Reason for Modification
Additional Modifications identified following the Regulation 19 Consultation			
AM01 (PMC2)	Page 9 Para 2.6	Given the significant proportion of emissions nationally that stem from buildings, it is a key part of the Government's strategy to improve building standards. As a result, the Government has published its intentions to introduce new Building Regulations during 2022, updating Part L for new homes and non-domestic buildings as a first step towards a Future Homes Standard. The new Building Regulations will require standards that are expected to reduce emissions from new buildings in comparison with current <u>previous 2013</u> standards by 31%.	For factual clarification. The Government introduced Part L 2021 on 15th June 2022 just after the Regulation 19 consultation.
AM02 (PMC3)	Page 10 Para 2.7	The Government expects the proposals for a Future Homes Standard to "ensure that an average home will produce at least 75% lower CO2 emissions than one built to current <u>(2013)</u> energy efficiency requirements. In the short term this represents a considerable improvement in the energy efficiency standards for new homes. Homes built under the Future Homes Standard will be 'zero carbon ready', which means that in the longer term, no further retrofit work for energy efficiency will be necessary to enable them to become zero-carbon homes as the electricity grid continues to decarbonise."	For factual clarification. The Government introduced Part L 2021 on 15th June 2022 just after the Regulation 19 consultation. The reference to a 75% reduction in this quote is in relation to previous 2013 building regulations.
AM03 (PMC4)	Page 16 Para 4.1.1	This DPD aims to focus on minimising carbon emissions from <u>existing</u> and new buildings within the District to support the achievement of national and local carbon reduction targets.	For factual clarification. The DPD also relates to existing buildings through Policy NZC4.
AM04 (PMC10)	Page 20 Figure 1	Stage 2: Zero and Low Carbon Energy Sources and Technologies NZC2(B) NC2(B)	To correct the reference from NC2(B) to NZC2(B)
AM05 (PMC11)	Page 20 Figure 1	Amend final text box to state 'Operational Net Zero <u>(Regulated Energy)</u> '	For factual clarification that the DPD relates to regulated operational energy and associated carbon emissions.
AM06 (PMC13)	Page 35 Para 10.2	For existing buildings an average heating energy demand of 40kWh/m2 <u>40kWh/m/yr</u> should be used as a target for proposals involving alterations, extensions and changes of use. Detailed guidance for	To correct that the units for heating energy demand should be expressed as kWh/m/yr.

Modification Number	Plan Reference	Proposed Additional Modification	Reason for Modification
		existing buildings is provided by LETI's Climate Emergency Retrofit Guide ⁸ . ⁸ https://www.leti.london/retrofit	
AM07 (PMC15)	Page 40 Glossary	Add definition of Unregulated Carbon Emissions. <u>Unregulated Carbon Emissions: Unregulated carbon emissions result from the building energy consumption from process and systems that are not 'controlled' by Building Regulations. For example, this could include energy consumption from sources such as IT equipment, lifts, external lighting, cooking, audio-visual equipment and other appliances.</u>	To assist with clarification that the DPD relates to regulated operational energy and associated carbon emissions.
AM08 (PMC16)	Page 42 Glossary	Add definition of Operational Energy. <u>Operational energy: Operational energy comprises regulated and unregulated energy consumption. The regulated energy is building energy consumption resulting from the specification of controlled, fixed building services and fittings, including space heating and cooling, hot water, and ventilation while the unregulated energy is the energy consumption that is not controlled by Building Regulations, including but not limited to, energy consumption from IT equipment, lifts, and appliances.</u>	To assist with clarification that the DPD relates to regulated operational energy and associated carbon emissions.
Additional Modifications identified during the Examination			
AM09 (PMC20)	Page 23 Policy NZC2(A)	New development of one or more new dwellings (C3 or C4 use) are expected to demonstrate a 10% improvement on the Part L 2021 Target for Fabric Energy Efficiency (set by SAP10.2).	For factual clarification and to allow for future updates to SAP.
AM10 (PMC21)	Page 23 Para 6.3	To demonstrate compliance with policy NZC2(A), calculations should be performed using the latest version of the SAP 10.2 methodology. (current version 20.08.2021). Government has confirmed that this calculation will become the statutory methodology by June 2022 along with the interim uplift to Part L.	For factual clarification and to allow for future updates to SAP.
AM11 (PMC22)	Page 26 NZC2(B)	New development of one or more new dwellings (C3 or C4 use class) and/or 1,000sqm or more of new non-residential floorspace, hotels (C1 use class), or residential institutions (C2 use class) should demonstrate through an energy statement that additional renewable, zero and low carbon energy technologies have been provided on-site* to achieve the carbon reductions required by Policy NZC1 and achieve on-site net zero operational carbon wherever possible.	For clarification.
AM12 (PMC23)	Page 30 Para 8.6	This average cost of carbon savings delivered by the fund will consider the cost of fund administration, project identification and setup, and insurance against failure/reversal of delivered projects. <u>A range of</u>	For clarification.

Modification Number	Plan Reference	Proposed Additional Modification	Reason for Modification
		<p>projects are being considered Projects are yet to be formalised by Warwick District Council but that will deliver carbon-saving interventions that would otherwise not be deliverable with other available funds. Projects could include but are not limited to: renewable energy generation; energy retrofitting in existing buildings; large scale tree planting. Projects will be delivered within Warwick District wherever possible but could include neighbouring authorities elsewhere in Warwickshire and Coventry and cross-border initiatives where there is a benefit to doing so (e.g. deliverability; economies of scale; social benefits). The same localism principles will be required in any alternative offsetting solution proposed by developers, whereby the Council will seek that the offsetting solution is delivered within Warwick District and/or delivers benefits to the district and must contribute to securing a net zero carbon future for Warwick District.</p>	
AM13	Page 11 Para 2.11	<p>Remove identified text from paragraph 2.11.</p> <p>In declaring a climate emergency, WDC has committed to “facilitating decarbonisation by local businesses, other organisations and residents so that total carbon emissions within Warwick District are as close to zero as possible by 2030.” The Council is therefore committed to introducing standards which enable net-zero carbon buildings as soon as possible. Recognising the Government’s position that “local planning authorities will retain powers to set local energy efficiency standards for new homes”, Warwick District Council is committed to bringing forward policies ahead of the Government’s stated timetable for the Future Homes Standard, whilst ensuring the approach we take broadly aligns with the approach set out in the Government’s outline proposals. This DPD provides the building standards policies to achieve this and (except where policies within the existing Local Plan are replaced by the DPD), these policies supplement those within the adopted Warwick District Local Plan, 2011 – 2029 (See Section 11). The policies will be incorporated and built on in the preparation of the emerging South Warwickshire Local Plan.</p>	Not relevant as adopted Local Plan policies are being enhanced and supported by the DPD policies and not superseded or replaced.
AM14	Page 18 Policy NZC1(iii)	<p>Remove identified text from sub para iii of the policy.</p> <p>iii. Compliance with the energy efficiency and renewable energy provisions set by policies (policy) NZC2(A) & (B) and by presenting the carbon savings achieved across each step of the energy hierarchy</p>	The text identified for removal is a typographical error.

Modification Number	Plan Reference	Proposed Additional Modification	Reason for Modification
		(demand reduction, efficient supply, renewable and other low carbon technology).	
AM15	Page 21 Para 5.9	Add definition to the Glossary for 'NEF/GHA' identified at the end of paragraph 5.9.	For clarification. Inspector's note: Provide a definition for NEF/GHA in the Glossary (page 40 of the DPD) and to explain clearly what it is.
AM16	Page 37 Para 12.2	Remove identified text from the paragraph. The 2008 Sustainable Buildings SPD is also superseded.	For clarification. Unnecessary text.
AM17	Page 48	Remove '4.30' from the last entry on the page. 4.30 Details of the Council's CEAP are available here	For clarification. Unnecessary and unrelated reference.



Warwick District Council Net Zero Carbon DPD Main Modifications Consultation Report

Warwick District

Prepared for: Warwick District Council

July 2023

Prepared by: Alexandra Green

Checked by: Paul Slater

Authorised by: Andrew Cornfoot

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The Old Bank
39 Market Square
Witney OX 28 6AD

01865 731700
enquiries@edgarslimited.co.uk
edgarslimited.co.uk





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1 Introduction

- 1.1 This Consultation Statement compiles all public responses to Warwick District Council's (WDC) Main Modifications Consultation on the Warwick District Net Zero Carbon Development Plan Document (NZC DPD).
- 1.2 The consultation ran from Monday 5th June 2023 to Monday 17th July 2023 – totalling a period of six (6) weeks.
- 1.3 The consultation documents along with all the relevant information about the consultation process was made available online and can be viewed using the following weblink: https://www.warwickdc.gov.uk/info/20799/development_plan_documents/1713/net_zero_carbon_development_plan_document/2
- 1.4 The following consultation documents were made available on the Council's website:
 - Final Schedule of Proposed Main Modifications to the Submission Net Zero Carbon DPD (EXAM18)
 - SA/HRA Addendum updates for proposed main modifications (EXAM 20)
- 1.5 Although not part of the consultation, the following documents were also published for reference purposes only:
 - Final Schedule of Additional Modifications (Minor Changes) to the Submission Net Zero Carbon DPD (EXAM 19)
 - Track Change version of the Net Zero Carbon DPD showing all proposed (Main and Additional Modifications (EXAM 21)
- 1.6 Printed copies of the consultation documents were also made available at the "deposit points" identified in the Council's Statement of Community Involvement (SCI).
- 1.7 All the consultees on the Council's planning policy consultation database who responded to previous consultations on the NZC DPD, and those wanting all Warwick Planning Policy updates were sent a notification via email and by post.
- 1.8 The consultation was also advertised in the Leamington Observer and on the Council's social media channels. Public notices were displayed in libraries and other deposit points as mentioned in the Warwick SCI.
- 1.9 Consultation comments could be made using the online consultation portal (Opus consult), via email to the planning policy team or in writing to the planning policy team at Warwick District Council's offices.

- 1.10 The consultation was carried out in accordance with the Council's Adopted SCI which was updated in 2020.
- 1.11 The consultation sought views only on the Main Modifications to the DPD recommended by the Planning Inspector. The proposed Main Modifications are numbered PMM01 – PMM20, representing 20 separate modifications.
- 1.12 The scope of the consultation was to scrutinise the Main Modifications, ensuring that they comply with legal requirements and can be considered to be sound.
- 1.13 Supplementary to the Main Modifications are the Additional Modifications, identified by the Council to make the plan clearer and easier to understand, or to correct any factual errors. These were not subject to consultation.
- 1.14 All responses to the Main Modifications consultation are included in the table below and it is noted where they are a specific comment on the Main Modifications using the references PMM01 – PMM20.

2 Representations summary

2.1 The Main Modifications consultation received responses from 14 separate respondents.

2.2 These respondents (in alphabetical order) comprise:

1. Dr Guy Barker
2. The Coal Authority
3. Anna Corser
4. Historic England
5. Kenilworth Town Council
6. Mr George Martin
7. Natural England
8. Mr Gary Stocker
9. Mr William Tansey
10. Savills, on behalf of Barratt David Wilson Homes (Mercia)
11. Stantec UK Limited, on behalf of IM Land
12. Warwick District Council
13. Warwick Town Council
14. Warwickshire County Council

2.3 The full wording of each representation along with a brief response is included within Section 3 below.

3 Consultation Representations

3.1 This section considers the representations submitted in response to the Main Modifications consultation. Where comments were submitted in relation to a specific Main Modification this is identified in the table under the column entitled 'Main Modification Ref'. Where this was not provided or could not be ascertained this has been marked 'N/A'. The table includes the representations submitted in full and alongside a brief response has been provided on behalf of the Council.

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response
85807	Mr William Tansey	PMM11	This would have the effect of lowering the standards required of new buildings to meet a lower bar which is easily more practically applied to older buildings requiring retrofit. It would not encourage the fast development of low cost building strategies by developers. The 2 should be dealt with as separate issues and legal challenges to new legislation for new buildings should be easy to defend with separate, practical standards for retrofit worthy buildings.	PMM11 relates to a minor alteration of Objective 2 to include reference to existing buildings and clarify that the DPD also includes standards that can be applied to existing buildings in Policy NZC4. PMM11 does not lower the standards required of new buildings and through Policy NZC4 a separate policy approach is applied to existing buildings as suggested by this representation. The Council does not consider the comment raises any issues of soundness or legal compliance.
85808	Mr William Tansey	PMM09	It seems sensible to require that future homes will not need retrofitting soon after they are built. I appreciate that it will not be possible to build a completely carbon neutral building in any development project of scale at he moment [<i>sic</i>], but the industry has a long way to go in that respect so this standard (lesser than the shorter version it replaces) should be held as a minimum requirement without the potential for negotiation that the proposed amendment suggests.	Comment noted. The Council does not consider the comment raises any issues of soundness or legal compliance.
85809	Mr William Tansey	PMM10	The use of the term 'regulated carbon' suggests a preference for carbon offsetting. This practice is essentially a greenwash and allows trading the carbon footprint generated and just shifts the problem elsewhere rather than aiming to minimize carbon production.	PMM10 is a factual clarification that the DPD relates to regulated operational energy and associated carbon emissions. It does not suggest a preference for carbon offsetting. The Council does not

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response
				consider the comment raises any issues of soundness or legal compliance.
85810	Mr William Tansey	PMM16	If the are 2 policies [sic] and the newer does not replace the old, will there be room for dispute if application of the later standard is questioned in favour of the older (preumable lower [sic]) standard?	PMM16 clarifies that the NZC DPD policies expand those in the adopted Local Plan. Both the adopted Local Plan and NZC DPD policies will need to be considered and applied to development proposals on adoption of the NZC DPD. The Council does not consider the comment raises any issues of soundness or legal compliance.
85811	Mr William Tansey	PMM08	If the intent is to remove paragraph 1.3 from the DPD entirely then I object. It is necessary to include stringent and clear challenges to future developers in order to ensure compliance, or where necessary to hold them to account for failure. In order to make retrofitting technologies economically attractive their price has to be low and sustainable. This is most likely to be achieved by generating a surplus of such technologies destined for the new-build market (whose developers will instinctively seek to down development costs). It may be unpalatable, rather than illegal. Re-word it perhaps?	PMM08 relates to the removal of the objective from this section of the DPD, as the objective was duplicated at 4.1.1, and its duplication is not required in this location. The Council does not consider the comment raises any issues of soundness or legal compliance.
85812	Mr William Tansey	PMM12	Again, this puts a presumption in favour of carbon trading rather than carbon neutrality. The previous wording was probably better.	PMM12 is a factual clarification that the DPD relates to regulated operational energy and associated carbon emissions. The Council does not consider the comment raises any issues of soundness or legal compliance.
85813	Mr William Tansey	PMM14	removed vagueness and room for easy challenge.	Comment noted.
85814	Mr William Tansey	PMM19	Should include funding of retrofit technologies of older buildings and not just traditional carbon offset projects like tree planting.	Comment noted. PMM19 does not specify the type of offsetting projects to be funded. PMM04 identifies that nature-based solutions are the Council's preferred carbon offsetting mechanism in the first instance but

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response
				also that other offsetting mechanisms may also be developed in the future. The Council does not consider the comment raises any issues of soundness or legal compliance.
85815	Mr William Tansey	PMM20	Should be included in the DPD to carry weight of enforcement.	Comment noted.
85816	Mr William Tansey	PMM07	support the sensitive retrofitting of renewables in listed buildings....an important piece of legal clarity.	Comment noted.
85817	Mr George Martin	N/A	<p>Foreword</p> <p>I have been a resident of Warwick District for 40 years and am currently Chair of the UK's Building Performance Network. My relevant working experience is as follows:</p> <p>Previous:</p> <ul style="list-style-type: none"> • Director of Environment – Tarmac Construction • Director of Business Affairs at the UK's Leading Sustainable Development Charity, Forum for the Future. • Director of Sustainability - Building Research Establishment (BRE) • Director of Sustainable Development - Willmott Dixon • Professor of Low Impact and Sustainable Buildings – Coventry University • Member of the Overseeing Panel of The Warwick People's Inquiry on Climate Change <p>Current:</p> <ul style="list-style-type: none"> • Chair, Sustainable Development Foundation • Executive Chair – Building Performance Network. • Board Member Good Homes Alliance. <p>When at BRE I was a member of the team that developed the Code for Sustainable Homes and the Zero Carbon Target for new homes from 2016.</p>	Comment noted.

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response
			<p>I was formerly a member of the Government’s Zero Carbon Task Force established to advise on how England could achieve the ambition for new school buildings to be zero carbon by 2016.</p> <p>I am a member of the Kenilworth All-together Greener Group (KATG) and helped develop the response that KATG made as part of the contribution to the Kenilworth Neighbourhood Plan.</p> <p>Currently as Chair of the Building Performance Network I was the project manager for the new Building Performance Evaluation, British Standard (BS 40101) published in January 2022. This BS is for all new and retrofitted buildings.</p>	
85818	Mr George Martin	N/A	<p>Introduction</p> <p>On the basis that we are where we are with this DPD, most of the changes proposed by the Examiner are appropriate. There are some that I highlight that should still be made to further improve the document. What I really do not understand is why the title has not been amended. All through the document where net zero carbon has been mentioned this has been changed to Net Zero REGULATED carbon. So why not change the title. This is the minimum change to the title that I believe should (MUST!) be made. Nationally agreed definitions will hopefully be agreed later this year.</p> <p>My suggestions for a new title were:</p> <ul style="list-style-type: none"> • Net zero regulated carbon DPD • Towards net zero regulated carbon DPD • WDC Climate Emergency DPD <p>The latter matches what Cornwall Council have done which has been titled – ‘Cornwall Council Climate Emergency DPD’.</p>	The comment is not a specific response to any of the Main Modifications. The title of the DPD was discussed at the Examination hearings. The Council consider the title of the DPD adequately describes the subject matter of the DPD and does not consider the comment raises any issues of soundness or legal compliance.
85819	Mr George Martin	N/A	My review of the document:	The comment is not a specific response to any of the Main Modifications. The title of the DPD

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			<p>Title – no change has been proposed. If I had just one recommendation to make it is to change the title. My minimum proposal is to make the title:</p> <p style="text-align: center;">Net Zero Regulated Carbon DPD.</p>	was discussed at the Examination hearings. The Council consider the title of the DPD adequately describes the subject matter of the DPD and does not consider the comment raises any issues of soundness or legal compliance.
85820	Mr George Martin	PMM08	Deleting 1.3 Objective of DPD. I agree	Support noted.
85821	Mr George Martin	N/A	2. National context. I agree with the additions.	Support noted. The comment relates to Additional Modifications.
85822	Mr George Martin	PMM16	3. The Planning Context. Main Modification PMM16. I agree	Support noted.
85823	Mr George Martin	PMM17	Main Modification PMM 17 I agree	Support noted.
85824	Mr George Martin	PMM18	Main Modification PMM18 I agree	Support noted.
85825	Mr George Martin	PMM09	<p>4. Aims and objectives Main Modification PMM09. I do not agree with this. The statement quote “By bringing forward standards equivalent to the Future Homes Standard (two years in advance of its national introduction) “ The fact is that the Future Homes Standard has not yet been approved. The hope – well the possibility is that the Future Homes Standards will in fact be better than this DPD. The talk is that SAP 10.2 is being significantly revised and will be termed SAP 11. At that point it will be closer to PHPP which is the Passivhaus methodology.</p> <p>Main Modification PMM09 states quote:</p> <p style="text-align: center;">...By bringing forward performance standards equivalent to the Future Homes Standard (two years in advance of its national introduction) new homes should not need future retrofit.....”</p> <p>This will only be the case if fossil fuels i.e. gas, is banned otherwise expensive retrofit will be required.</p>	<p>The comment is noted. PMM09 provides factual clarification that the DPD relates to regulated operational energy and does not include unregulated energy and associated emissions. The DPD will ensure that the contribution to the District’s carbon deficit is minimised.</p> <p>It is correct that the final Future Homes Standard has not yet been approved. The DPD does not require the Future Homes Standard.</p> <p>For new dwellings Policy NZC1 sets a minimum 63% reduction of carbon emissions based on Building Regulations Part L 2021. This % reduction aligns with the Government’s Future Homes</p>

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			<p>There is a possibility that the electricity grid will not be able to support all new homes to be on heat pumps and gas may have to be installed. Developers will of course jump at this opportunity.</p> <p>I seriously do not think we should be looking at the creation of woodland for offsetting. Additional renewable energy and retrofit of other buildings fine....but NOT woodland.</p> <p>One point about additional renewable energy and retrofit of other buildings of sitethis will not help the occupants of the new homes in terms of cost of living.</p> <p>Also – if this really is net zero carbon, why is this offsetting necessary?</p>	<p>Standard set to come into force in 2025, at the time of drafting the DPD.</p> <p>It is set out at paragraph 7.3 of the DPD that the Council is expecting that energy sources avoid fossil fuels in their entirety.</p> <p>Additional comments relating to the electricity grid, offsetting are noted. In accordance with the energy hierarchy, Policy NZC1 is clear that offsetting will only be considered an acceptable solution to net zero carbon requirements if it can be demonstrated that carbon reductions achieved via on-site measures (and near-site renewables) are demonstrably unfeasible or unviable. PMM04 identifies that Warwick District Council intend to utilise nature-based solutions through the WESTP as its preferred carbon offsetting mechanism in the first instance. Other offsetting mechanisms may also be developed in the future.</p> <p>The Council does not consider the comments raises any issues of soundness or legal compliance.</p>
85826	Mr George Martin	PMM10	<p>Main Modification PMM10. Good that the clause now states net zero REGULATED carbon.</p> <p>If good enough to add the word REGULATED into clause 4.2.1 why not include in the overall title?</p>	Support for PMM10 noted.
85827	Mr George Martin	PMM11	<p>Main Modification PMM 11. I agree with the addition of the words “and existing”</p>	Support noted

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85828	Mr George Martin	N/A	However, there must be a definition of what a “robust carbon offsetting policy” is, as part of clause 4.2.4 as Developers will run rings around this.	The comment is not a specific response to any of the Main Modifications.
85829	Mr George Martin	N/A	5. Overarching Strategy – Achieving Net Zero Carbon Development. Main Modification policy NZC1. Just a typo change.	Comment noted. The comment relates to Additional Modifications.
85830	Mr George Martin	PMM12	Main Modification PMM12. I agree with this change.	Support noted.
85831	Mr George Martin	PMM13	Main Modification PMM13. I agree with the changes. Basically making it clear that this is for REGULATED energy.	Support noted.
85832	Mr George Martin	PMM01	Main Modification PPM01. This is a new clause to add – 5.12. This probably needs to go unchanged – I do not personally support ..“financial contributions towards a carbon offsetting policy’	Comment noted. The Council does not consider the comment raises any issues of soundness or legal compliance.
85833	Mr George Martin	N/A	Index [6]: It should be noted that the comment made quote “FHS being a 63.8% reduction on Part L 2021” may not be correct as the FHS has not been finalised. In addition the DPD uses SAP 10.2. The FHS will probably use SAP 11 which will be far closes to PHPP the Passivhaus way of assessment.	The comment is not a specific response to any of the Main Modifications. The comment relates to footnote 6. The Council does not consider the comment raises any issues of soundness or legal compliance.
85834	Mr George Martin	N/A	6. Reducing Energy Demands: Energy Efficient Buildings. Main Modification Policy NZC2(A). I approve of the change. Interesting that the change is to remove mention of SAP 10.2 and instead having it read as Quote: “using the latest version of SAP” and not specifically SAP 10.2. The sensible change should be made throughout the document.	Support noted. The comment relates to Additional Modifications.
85835	Mr George Martin	PMM02	Main Modification PMM02. I approve of this addition.	Support noted.
85836	Mr George Martin	PMM14	7. Energy sources	Support noted.

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			Main Modification Policy NZC2(B): Zero or Low Carbon Energy Sources and Zero Carbon Ready Technology. PMM14. I approve this. This is again about adding in the word REGULATED in front of operational carbon.	
85837	Mr George Martin	N/A	Also removed are the words “where possible” which is good.	Support noted. The comment relates to Additional Modifications.
85838	Mr George Martin	N/A	One change I would like to see – but unlikely is clause 7.4. This gives the Developer the option to offset under NZC2(C) where renewable energy is not possible on site and where there are grid constraints. Developers are going to run rings around this. Offsetting should only be allowed for flats and non-residential buildings but NOT for low rise housing.	The comment is not a specific response to any of the Main Modifications. The Council does not consider the comment raises any issues of soundness or legal compliance.
85839	Mr George Martin	PMM03	Main Modification PMM03. I approve of this addition.	Support noted.
85840	Mr George Martin	N/A	8. Carbon Offsetting. Policy NZC2(C) – I approve of the changes.	Support noted.
85841	Mr George Martin	PMM04	Main Modification PMM04. I approve of this change.	Support noted.
85842	Mr George Martin	PMM19	Main Modification PMM 19. I approve of this addition	Support noted.
85843	Mr George Martin	PMM05	Main Modification PMM 05. I approve of this addition	Support noted.
85844	Mr George Martin	N/A	9. Embodied Carbon Policy NZC3: Embodied Carbon – I cannot see any changes proposed here.	Comment noted. No changes are proposed to the wording of Policy NZC3
85845	Mr George Martin	PMM20	Main Modification PMM20. I approve the change and additions.	Support noted.
85846	Mr George Martin	PMM06	Main Modification PMM 06. I approve of this addition.	Support noted.

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85847	Mr George Martin	PMM07	10. Existing Buildings Policy NZC4: Existing Buildings I approve the change.	Support noted.
85848	Mr George Martin	N/A	An important point. There is a statement in the policy quote: <i>"In addition, all developments should consider alternatives to conventional fossil fuel boilers"</i> The DPD MUST ban fossil fuel boilers if it is to get anywhere near to net zero regulated carbon [sic]. Having a fossil fuel boiler means that future retrofit will be required. This goes against one of the objectives.	The comment is not a specific response to any of the Main Modifications. Policy NZC4 is consistent with the Objectives of the DPD at Section 4 as modified, notably Objective 2. The Council does not consider the comment raises any issues of soundness or legal compliance.
85849	Mr George Martin	PMM07	Main Modification PMM 07. This 10.3 clause needs to be stronger. It should say that fossil fuel boilers are not allowed.	Comment noted. PMM07 clarifies how the DPD policy NZC4 relates to existing Local Plan policy. The Council does not consider the comment raises any issues of soundness or legal compliance.
85850	Mr George Martin	N/A	11. Viability. No changes proposed.	Comment noted. No changes are proposed to the wording of Section 11 Viability.
85851	Mr George Martin	PMM15	12. Warwick District Plan 2011 – 2019 Policies superseded or amended by this DPD Main Modification PMM 15. I approve the addition of the one word and deletion of one word.	Support noted.
85852	Mr George Martin	N/A	Glossary I approve of the addition of a definition of both Operational Energy [sic] and Unregulated Energy. There is still no definition for the 'Performance Gap'. I would recommend that reference to BS 40101 the Building Performance evaluation British Standard.	The comment is not a specific response to any of the Main Modifications. The comments relate to Additional Modifications. The Council does not consider the comment raises any issues of soundness or legal compliance.

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			<p>The definition for Net Zero Carbon makes no sense in the context of this DPD. It states quote:</p> <p><i>“Net zero refers to achieving a balance between the amount of greenhouse gas emissions produced and the amount removed from the atmosphere.”</i></p> <p>Will this make any sense to a developer, occupiers, Councillors? I do not think so.</p>	
85853	Mr George Martin	N/A	Appendix1 Policy Context. No changes proposed.	Comment noted. No changes are proposed to the wording of Appendix 1 .
85854	Savills on behalf of Barratt David Wilson Homes (Mercia)	PMM04; PMM05; PMM09; PMM12; PMM13; PMM14; PMM16; PMM17; PMM18; PMM19	<p>Savills has prepared the following submission on behalf of Barratt David Wilson Homes (Mercia), referred to hereafter as “BDWH”, in response to the emerging Warwick Zero Carbon DPD Main Modifications Consultation.</p> <p>Background</p> <p>BDWH is part of the national Barratt Developments Plc, which has been involved in housebuilding for over 60 years. Barratt Developments is supportive of the decarbonisation agenda and has already put a number of initiatives in place, including following its own Zero Carbon Home Roadmap, through which it aims for all of its house types to be zero carbon (regulated only) by 2030.</p> <p>Barratt Developments has an extensive commitment to sustainable housebuilding and has been nationally recognised for its commitment in this area by: the FTSE 100 Responsibility Index; the next Generation Sustainability Benchmark Report; and the Carbon Disclosure Project, which recently awarded it an ‘A’ rating, demonstrating that it is one of the leading companies worldwide for the action that it is taking.</p> <p>BDWH considers that each of the following Proposed Main Modifications (PMMs) do not go far enough to address the</p>	Objection noted. See Council response below to each comment on the respective PMMs.

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			challenges involved in the implementation of, or provide sufficient justification for, introducing both the Future Homes Standard two years early and other enhanced planning policy requirements: PMM04; PMM05; PMM09; PMM12, PMM13; PMM14; PMM16; PMM17; PMM18; PMM19; and PMM20. This submission sets out the rationale for this by commenting on each of these PMMs in turn.	
85855	Savills on behalf of Barratt David Wilson Homes (Mercia)	PMM04	<p>BDWH notes that the proposed modification to paragraph 8.7 states that: "...<i>Warwick District Council intend to utilise nature based solutions through the WESTP as its preferred carbon offsetting mechanism in the first instance...</i>"</p> <p>BDWH raised concerns through the Examination process that a carbon offsetting fund had not been set up and that there is: no explanation as to how this approach would meet the requirements for planning obligations; and no clarity on how or when the fund would be set up. The Warwick District Council (WDC) response to Matter 6 of the Inspector's Matters Issues and Questions, confirmed that the Warwickshire Ecosystem Trading Protocol (WESTP) is yet to be consulted upon and proposed that consultation would commence in April 2023.</p> <p>BDWH is not aware of, and has not been made aware of as a participant in the Zero Carbon DPD examination process, any consultation having as yet taken place on the WESTP. BDWH is also unaware of consultation having taken place as yet on a refreshed Warwickshire, Coventry and Solihull Green Infrastructure Strategy (WCSGIS), which is understood to be including the WESTP as an appendix.</p> <p>Whilst PMM04 includes a short summary of what WESTP is proposed to cover, BDWH considers that in order to make the provisions set out in the proposed Carbon Offsetting Policy NZC2(C) sound, the PMMs should be making reference to an actual mechanism that is either already in place or at least a mechanism for which details are clearly available for how it is intended to operate.</p>	<p>Objection noted.</p> <p>PMM04 outlines and provides clarification on measures that Warwickshire County Council has taken and put in place in creating a carbon market for Warwickshire and which will be the preferred carbon offsetting mechanism on adoption of the DPD.</p> <p>Warwickshire County Council advise that the WCS Green Infrastructure Strategy and the WESTP is expected to be consulted upon in August/September 2023.</p> <p>The Comment makes reference to the forthcoming Supplementary Planning Document (SPD) and the Council can confirm consultation on this SPD is due to commence in September 2023.</p> <p>As the comment identifies it also includes a number of comments about the approach to offsetting which were raised during the examination process which may be summarised as:</p>

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			<p>BDWH also wishes to highlight that PMM04 does not provide a clear link between the proposed use of WESTP and the impact of the cost of offsetting measures on the viability of development proposals (either on allocations or windfall sites) which are being brought forward against the policies of existing adopted Warwick District Local Plan. In addition PMM04 does not provide any further clarity on how the proposed carbon offsetting price of £254 / tonne would work in practice and how this would impact on the viability or deliverability of new development. There is therefore still a need for further evidence base justification to be made available in relation to this approach.</p> <p>As it currently stands there is still no certainty on: how the carbon offsetting approach in proposed Policy NZC2(C) will work; what schemes will be funded; whether the approach will be viable; when the fund will be operational; and what measures might be in place in the intervening period. It is noted that WDC is producing a Supplementary Planning Document which may include further information in relation to this matter, but a draft of this document is also not currently available.</p> <p>This general lack of clarity and certainty will cause an issue with the effectiveness and implementation of the proposed Policy provisions and will disrupt the delivery of new development through the planning application process. BDWH considers that until such further information is available for review and consultation Policy NZC2(C) remains insufficiently justified. PMM04 does not go far enough to address this position and this should be resolved before the DPD is adopted.</p>	<p>When a carbon offsetting fund would be set up; How the approach would meet the requirements for planning obligations; What schemes will be funded; The impact of offsetting on development viability;</p> <p>The Council considers that these comments were considered during the examination hearings and do not raise any issues of soundness or legal compliance.</p>
85856	Savills on behalf of Barratt David Wilson Homes (Mercia)	PMM05	BDWH notes that this PMM introduces new wording at paragraph 8.10 which explains that the proposed carbon offsetting approach links to existing Warwick District Local Plan policies DM1 and DM2 with regard to financial contributions and assessment of the viability of development. BDWH considers that the identification of specific existing	<p>Comment in relation to PMM05 and paragraph 8.10 noted.</p> <p>In relation to comments on the wider issues of viability, the Council considers that these comments were</p>

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			<p>adopted policies is helpful, as is the clarification given that the proposed offsetting funds that would be secured through this process will be ring-fenced. However this PMM is considered to insufficiently address the wider issue of viability in the context of Local Plan-making.</p> <p>As set out within representations submitted to previous consultation stages for this DPD, factors which should be addressed in relation to viability include: the submitted Viability Study not taking into consideration the viability of sites greater than 300 units, which quite often have their own challenges regarding additional strategic infrastructure costs; the rationale for the figures used in relation to build cost inflation, which Savills considers is not evidence based and should be substantially higher; and the fact that the submitted Viability Study proposes that viability conflicts arising from bringing in the proposed NZC DPD policies could be resolved through a reduction in affordable housing, without consideration being given to the potential disbenefits from reducing affordable housing and the economic and social implications that might arise as a result.</p> <p>To ensure the DPD is suitably justified, PMM05 and the approach taken through the other PMMs, should give clear regard to the viability implications of the proposed DPD Policies in order to demonstrate that the proposed DPD Policies are sound.</p>	<p>considered during the examination hearings and do not raise any issues of soundness or legal compliance.</p>
85857	Savills on behalf of Barratt David Wilson Homes (Mercia)	PMM09	<p>BDWH notes that the PMMs to paragraph 4.1.2 state that “By bringing forward performance standards equivalent to the Future Homes Standard (two years in advance of its national introduction) the new homes should not need future retrofit, and by collecting carbon offset payments the DPD will raise funds to deliver other vital but currently underfunded actions...”. BDWH supports the transition to a low / zero carbon future and is following its own Zero Carbon Home Roadmap. BDWH, in common with the development industry as a whole is also gearing up for the national implementation of the Future Homes Standard in 2025.</p>	<p>Comment noted.</p> <p>PMM09 is proposed for factual clarification that the DPD relates to regulated operational energy and does not include unregulated energy and associated emissions. The DPD will ensure that the contribution to the District’s carbon deficit is minimised.</p>

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			<p>BDWH nevertheless wishes to highlight that this PMM does not address the concerns expressed by the development industry through the DPD consultation process on the implications of the intention to accelerate the implementation of the Future Homes Standard to new development in Warwick District by two years. These concerns arise from the significant increase in complexity which will result from the introduction of this policy approach. This complexity will not only affect developers, but will also affect consultants, architects, designers, suppliers and trades, who all rely on a set of clear and consistent standards to which they can refer and be confident in.</p> <p>In this regard it should be noted that the 'Ready for Zero' Report¹ identifies: how the industry still needs upskilling (in the form of design, installation, set-up and commissioning) which needs to be planned, progressively rolled out and monitored; that suitable technological Design Standards need to be developed and published; there is still a need for training and information for consumers; and that the industry needs rapid and significant supply chain development. In order to achieve this the 'Ready for Zero' Report emphasises that the careful design of transitional arrangements is key.</p> <p>BDWH wishes to reiterate that it takes time to get the measures in place and for the necessary technology to be tested and be made available at a reasonable cost to enable the Future Homes Standard approach to be applied on a large scale / national basis. There is therefore a risk that rushing this process could lead to: a reduction in housing delivery (including in relation to affordable housing); harm to economic growth; and a reduction in the number of jobs created. A significant slowdown in the delivery of new homes at a time when housing delivery is greatly needed would not be a positive outcome. The PMM does not address these fundamental concerns.</p>	<p>BDWH support for the transition to a low / zero carbon future and also gearing up for the national implementation of the Future Homes Standard in 2025 is noted.</p> <p>The Council note BDWH concerns relating to the implementation of the Future Homes Standard in Warwick District ahead of national implementation.</p> <p>The Council considers that these comments were considered during the examination hearings and do not raise any issues of soundness or legal compliance.</p>

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			1 Future Homes Hub Task Group Report (28 February 2023). Ready for Zero: Evidence to inform the 2025 Future Homes Standard.	
85858	Savills on behalf of Barratt David Wilson Homes (Mercia)	PMM12	BDWH notes that the PMMs to paragraphs 5.2 and 5.6 to clarify that the provisions relate to regulated operational energy and regulated energy respectively and welcomes this change. This change is necessary to improve the effectiveness of the proposed approach. However in relation to the change to paragraph 5.6 (part 3: carbon offsetting) it is not considered that the PMM goes far enough to make the approach to implementing carbon offsetting sound, as explained further in the BDWH response to PMM04.	Support for PMM12 noted in relation to clarification that the provisions relate to regulated operational energy.
85859	Savills on behalf of Barratt David Wilson Homes (Mercia)	PMM13	BDWH notes that the PMMs to paragraphs 5.2 and 5.6 to clarify that the provisions relate to regulated operational energy and regulated energy respectively and welcomes this change. This change is necessary to improve the effectiveness of the proposed approach. However in relation to the change to paragraph 5.6 (part 3: carbon offsetting) it is not considered that the PMM goes far enough to make the approach to implementing carbon offsetting sound, as explained further in the BDWH response to PMM04.	Support for PMM13 noted in relation to clarification that the provisions relate to regulated operational energy. See Council response to Savills on behalf of Barratt David Wilson Homes (Mercia) in relation to PMM04
85860	Savills on behalf of Barratt David Wilson Homes (Mercia)	PMM14	In common with the response given to PMM12 & PMM13 BDWH notes that the proposed modifications to proposed Policy NZC2(B) clarify that the provisions relate to regulated operational carbon and welcomes this change. This change is necessary to improve the effectiveness of the proposed approach. However it is not considered that the PMM goes far enough to sufficiently explain what details need to be included within the Energy Statement which is a requirement of this particular proposed Policy. As explained further in response to PMM18, BDWH and other parties have raised concerns through the DPD consultation process about the uncertainty that arises from leaving too much detail to SPDs. Draft Policies NZC1 and NZC2(B) are clear in specifying which development proposals the proposed energy statement should be submitted to support and that the proposed Energy Statement should demonstrate the	Support for PMM13 noted in relation to clarification that the provisions relate to regulated operational energy. BDWH concerns relating to what details need to be included in an Energy Statement are noted. The Council is in the process of drafting SPD on this matter, the scope of which has already been presented as part of the Examination Hearings (EXAM 16). The Council expect the draft SPD will be subject to consultation commencing in September 2023 and

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			<p>application of the energy hierarchy through showing how the requirements set out in Draft Policies NZC2 (A), (B) & (C) are met, where appropriate.</p> <p>BDWH nevertheless remains concerned that this proposed DPD policy would not be effective without further clarity on what the required Energy Statements need to include, which in turn would currently impact on the ability to implement the proposed DPD Policies, as drafted, upon adoption. This will be a particular issue in the intervening period between when the DPD is adopted and when a subsequent SPD is adopted. This includes providing more clarity on how the content of Energy Statements should reflect each type of planning application. The level of detail (e.g. final number, type, mix, design and layout of dwellings) that can be provided at the outline stage is very different to that which can be provided at reserved matters stage.</p> <p>It is also currently unclear whether the level of detail included within an SPD might have an impact on scheme viability and deliverability, notably in the context of WDC's proposal to implement the Future Home Standards ahead of the national 2025 implementation date. PMM14, in deferring all detail to a future SPD, does not go far enough to address this position and this should be resolved through the inclusion of, and consultation on, more details within the supporting text for the proposed policies before the DPD is adopted.</p>	<p>will welcome the input and comments of BDWH on the draft SPD.</p> <p>The Council further expect that the final SPD will be available alongside adoption of the DPD.</p> <p>The Council does not consider the comment raises any issues of soundness or legal compliance.</p>
85861	Savills on behalf of Barratt David Wilson Homes (Mercia)	PMM16 PMM17	<p>BDWH notes that the PMMs to paragraphs 3.3.4 and 3.3.5 clarify which policies within the adopted Warwick District Local Plan are expanded upon by the proposed Zero Carbon DPD policies. The identification of specific cross-references to adopted policies is welcomed, as is the clarification that no existing policies are being replaced.</p> <p>As a general point BDWH supports the transition to a low / zero carbon future, but considers that neither these PMMs, nor any of the other PMMs being subject to consultation, include sufficient justification to bridge between the existing Warwick</p>	<p>Support for the clarification provided by PMM16 and PMM17 noted.</p> <p>BDWH general comments regarding the justification for the Net Zero DPD policies are noted. The Council considers that these comments were considered during the examination hearings and do not raise any issues of soundness or legal compliance.</p>

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			District Local Plan policies and the proposed Zero Carbon DPD policies. This is particularly the case for where new standards are being brought in and for the proposal to bring the implementation of the Future Homes Standard forward through the proposed new DPD policies. As set out within earlier representations this justification is not considered to be clearly expressed within the DPD evidence base. BDWH proposes that in order to demonstrate the soundness of the proposed new policies these PMMs should be expanded to explain such justification.	
85862	Savills on behalf of Barratt David Wilson Homes (Mercia)	PMM18	<p>BDWH notes that the PMMs to paragraph 3.36 states “To assist the implementation of the DPD policies, the Council will also provide supplementary planning guidance alongside the DPD, including on the content of Energy Statements”. BDWH also notes, as set out earlier in these representations, that WDC is currently in the process of producing a Supplementary Planning Document (SPD) which may include further information in relation to this matter, but a draft of this document is also not currently available.</p> <p>BDWH and other parties have raised concerns through the DPD consultation process about the uncertainty that arises from leaving too much detail to SPDs. Draft Policy NZC1 is clear in specifying which development proposals the proposed Energy Statement should be submitted to support and that the proposed Energy Statement should demonstrate the application of the energy hierarchy through showing how the requirements set out in Draft Policies NZC2 (A), (B) & (C) are met, where appropriate.</p> <p>BDWH remains concerned that this proposed DPD policies would not be effective without further clarity on what the required Energy Statements need to include, which in turn would currently impact on the ability to implement the proposed DPD Policies, as drafted, upon adoption. This will be a particular issue in the intervening period between when the DPD is adopted and when a subsequent SPD is adopted. This includes the need to provide more clarity on how the content of</p>	<p>BDWH concerns relating to what details need to be included in an Energy Statement are noted.</p> <p>The Council is in the process of drafting SPD on this matter, the scope of which has already been presented as part of the Examination Hearings (EXAM 16).</p> <p>The Council expect the draft SPD will be subject to consultation commencing in September 2023 and will welcome the input and comments of BDWH on the draft SPD.</p> <p>The Council further expect that the final SPD will be available alongside adoption of the DPD.</p> <p>The Council does not consider the comment raises any issues of soundness or legal compliance.</p>

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response
			<p>Energy Statements should reflect each type of planning application. The level of detail (e.g. final number, type, mix, design and layout of dwellings) that can be provided at the outline stage is very different to that which can be provided at reserved matters stage.</p> <p>It is also currently unclear whether the level of detail included within an SPD might have an impact on scheme viability and deliverability. PMM18, in deferring all detail to a future SPD, does not go far enough to address this position and this should be resolved through the inclusion of, and consultation on, more details within the supporting text for the proposed policies before the DPD is adopted.</p>	
85863	Savills on behalf of Barratt David Wilson Homes (Mercia)	PMM19	<p>BDWH notes that the PMM to paragraph 8.9 states that “The Carbon Offset fund will be separate to the Community Infrastructure Levy (CIL) and other funds and will be used to deliver carbon-saving interventions that would otherwise not be deliverable with other available funds”. BDWH acknowledges that the inclusion of reference to a specific funds does provide clarity on what the intended mechanism is. However, as set out in 5 response to PMM04 there are unanswered questions in relation to: how this intended mechanism will work; what schemes will be funded; whether the approach will be viable; when the fund will be operational; and what measures might be in place in the intervening period until the fund is operational.</p> <p>As with PMM04 this general lack of clarity and certainty will cause an issue with the effectiveness and implementation of the proposed Policy provisions and will disrupt the delivery of new development through the planning application process. BDWH considers that until such further information is available for review and consultation Policy NZC2(C) remains insufficiently justified. PMM04 and PMM19 do not go far enough to address this position and this should be resolved before the DPD is adopted.</p>	<p>The acknowledgement that PMM19 adds clarity is noted.</p> <p>Please also see Council response to Savills on behalf of Barratt David Wilson Homes (Mercia) in relation to PMM04.</p> <p>The Council does not consider the comment raises any issues of soundness or legal compliance.</p>

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response
85864	Savills on behalf of Barratt David Wilson Homes (Mercia)	PMM20	<p>BDWH notes that the PMM to paragraph 9.4 states that “Additional guidance in terms of the type and scope of embodied carbon assessments will be included in Supplementary Planning Guidance to support the DPD”. BDWH also notes, as set out earlier in these representations, that WDC is producing a Supplementary Planning Document (SPD) which may include further information in relation to this matter, but a draft of this document is also not currently available.</p> <p>BDWH and other parties have raised concerns through the DPD consultation process about the uncertainty that arises from leaving too much detail to SPDs. Proposed Policy NZC3 is requiring the submission of a specific statement with planning application proposals to explain the approach to embodied carbon. The ‘Ready for Zero’ Report proposes that as the energy performance of a home increases so does its embodied carbon and accordingly highlights that the interdependencies between operational and system wide embodied carbon need to be better understood. BDWH therefore remains concerned that this proposed Policy would not be effective without further clarity on what the required reporting needs to include, which would currently impact on the ability to implement the Policy, as drafted, upon adoption. This will be a particular issue with the intervening period between when the DPD is adopted and when a subsequent SPD is adopted. It is also currently unclear whether the level of detail included within an SPD might have an impact on scheme viability and deliverability. PMM20, in deferring all detail to a future SPD, does not go far enough to address this position and this should be resolved through the inclusion of, and consultation on, more details within the supporting text for the Policy before the DPD is adopted.</p> <p>I trust that you find the representations set out in this letter in order. Please do not hesitate to contact me should you have any questions regarding these representations.</p>	<p>BDWH concerns relating to the required embodied carbon reporting are noted.</p> <p>The Council is in the process of drafting SPD on this matter, the scope of which has already been presented as part of the Examination Hearings (EXAM 16).</p> <p>The Council expect the draft SPD will be subject to consultation commencing in September 2023 and will welcome the input and comments of BDWH on the draft SPD.</p> <p>The Council further expect that the final SPD will be available alongside adoption of the DPD.</p> <p>The Council does not consider the comment raises any issues of soundness or legal compliance.</p>

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response
			² Future Homes Hub Task Group Report (28 February 2023). Ready for Zero: Evidence to inform the 2025 Future Homes Standard.	
85865	Mr Gary Stocker	N/A	<p>I am giving some ideas towards Warwick District Council's net zero goals, as advertised in the Leamington Observer (https://leamingtonobserver.co.uk/news/green-minded-warwick-district-residents-invited-to-have-say-on-net-zero-strategy/?fbclid=IwAR0ilqExEjkekuB7fNUJJ-G88kL8SOT4bLiWgGNZ65GHL91xk62UGeWz8GI).</p> <p>Firstly, any new builds were possible and practical, as a condition of planning permission, should have all of the energy saving gizmos built in. I believe that at the moment new builds only have to meet a minimum standard. Increasing that standard to everything possible would be good. Similarly any council buildings, where practical and cost effective, should be retrofitted with them.</p> <p>Although I am in favour of solar farms being built (at the end of the day they are easy enough to deconstruct and have the land go back to its original use), I do think that it is better to have solar panels put on roofs, rather than taking up agricultural land.</p> <p>A lot of companies have a green manifesto as part of their ethos. So long as it is genuine, have the council only use them if contracting out different jobs to outside companies.</p> <p>Buses have been a lot more reliable just recently. With the two pounds cap on most fares (which I think is a good idea) there are a lot of incentives to use it. What does people off is when a service is cancelled altogether, being late is bad enough, that is even worse though.</p> <p>What creates a lot of pollution from idling engines are roadworks. I know that this cannot be helped most of the time. What is frustrating though is when some work is carried out and the hole filled in. Then shortly afterwards another</p>	<p>Comment noted. The comment is not a specific response to any of the Main Modifications.</p> <p>The Council does not consider the comment raises any issues of soundness or legal compliance.</p>

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response
			<p>organisation comes along and digs up the same bit of road! Having some kind of coordination body would help to reduce this.</p> <p>No mow May I think is a good idea. Although there is room for improvement (we all have to start somewhere). I think that you should continue, learning from past experience. Leaving grasslands to grow more absorbs more carbon dioxide, whereas highly maintained grassland can actually create more carbon dioxide.</p> <p>Vegetation is good at absorbing carbon dioxide and other pollutants. Warwick District Council has been good at planting vegetation. Some plants are better than others at absorbing carbon dioxide than others. Maybe having planters (if there is room) with plants like that in at pollution black spots. I used to live in Wellesbourne back in the 1970's. The National Vegetable Research Station (now part of the University of Warwick) was just outside it. They used to have annual open days. One year when I did not go, someone whom I knew went and they mentioned some experimental plants (they resembled cress) which could take in large amounts of carbon dioxide and correspondingly give out large amounts of oxygen. The trouble is that is all that I know about it and everyone who did work there is either retired and or dead. With the plants though, obviously, especially if they are non-native, make sure that they are non-invasive and cannot escape into the wider environment!</p> <p>There are roads and pavements that generate electricity just from being driven on/walked on. One being Pavegen (https://www.pavegen.com/).</p> <p>So how about getting a Pavegen pavement into an area where there is a lot of foot fall, whether it is council property, in public areas or private shops?</p>	

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response
			<p>I do not know how much influence that you have with local schools, but teaching children about it will make your job easier in future years. Although be careful how you do it. You do not want to be accused of indoctrination.</p> <p>People cycling more CAN be better for carbon emissions. However if you get a queue of traffic behind them though, that is not so good. So a good compromise are cycle lanes/shared cycle footpaths. I am in favour of those. I certainly have no objection as a pedestrian sharing foot/cycle paths with responsible cyclists (which all of the ones that I have encountered are). If you see one coming you just move over a bit so that they can get past. The only problem is that although the majority of cyclists will use them, you do get a minority who think that they are above that and still use the public highway. I realise that they are entitled to use it, but when the local authority has put a cycle path in, paid for out of public funds, then the least that they can do is to use it. So encouraging cyclists to use them will certainly help with carbon.</p> <p>A lot of cafes which I go to just seem to chuck their used teabags/coffee grounds/tealeaves in the normal rubbish. Putting them into food caddies/green bins would obviously be better. Is there a way to encourage them to do this?</p> <p>One of the consequences of carbon in the atmosphere is rising temperatures. Built up areas can be notorious "hot spots". Lighter colours are obviously better for reflecting heat away. I did repaint our flat garage roof which some silver coloured, reflective roof paint. It certainly shines (and by implication) reflects away a lot of sunlight. So having buildings, infrastructure, etc, made out of lighter coloured materials could help to reflect away sunshine. I know that is treating the symptoms, rather than the cause, but it could still help.</p> <p>Finally emphasise how this is going to save money (where it does) and how it is going to benefit the wider community, to get locals on side.</p>	

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response																					
			I am very passionate about sensible green issues, so please free to contact me if you wish.																						
85866	STANTEC UK LIMITED on behalf of IM Land	N/A	We wish to thank Planning Inspector Andrew McCormack, Programme Officer Ian Kemp, and the Council Officers for the open consultation and positive engagement in the preparation of the draft Warwick District Net Zero Carbon DPD.	Comment noted																					
85867	STANTEC UK LIMITED on behalf of IM Land	PMM09, PMM10, PMM12, PMM13, PMM14	We are pleased to confirm IM Land's support for the changes made as per the Schedule of Proposed Main Modifications, particularly modifications PMM09, PMM10 and PMM12-14 which clarify the scope of the Net Zero target to regulated operational emissions.	Support noted																					
85868	STANTEC UK LIMITED on behalf of IM Land	PMM10, PMM12, PMM13, PMM14	<p>We consider that it would be beneficial to the clarity and effectiveness of the DPD to consolidate the terminology used within it. Due to the iterative preparation and evolution of the DPD, multiple terms are in use to describe the regulated Net Zero aspiration. An example list is provided in the table below. Variations in terminology relating to the same scope and target could be replaced by one consistent phrase which would correspond better to the terminology given in the glossary.</p> <table border="1"> <thead> <tr> <th>Item</th> <th>Location</th> <th>Terminology used</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Page 16 Para 4.2.1 Objective 1</td> <td>net zero regulated carbon</td> </tr> <tr> <td>2</td> <td>Page 19 Para 5.2</td> <td>net zero carbon in operation in relation to regulated operational energy</td> </tr> <tr> <td>3</td> <td>Page 19 Para 5.6</td> <td>total operational carbon emissions (regulated energy) to net zero</td> </tr> <tr> <td>4</td> <td>Page 26 Policy NZA2(B)</td> <td>on-site net zero regulated operational carbon</td> </tr> <tr> <td>5</td> <td>Page 20 Figure 1</td> <td>Operational Net Zero (Regulated Energy)</td> </tr> <tr> <td>6</td> <td>Page 18 Policy NZA1</td> <td>net zero operational regulated carbon emissions</td> </tr> </tbody> </table>	Item	Location	Terminology used	1	Page 16 Para 4.2.1 Objective 1	net zero regulated carbon	2	Page 19 Para 5.2	net zero carbon in operation in relation to regulated operational energy	3	Page 19 Para 5.6	total operational carbon emissions (regulated energy) to net zero	4	Page 26 Policy NZA2(B)	on-site net zero regulated operational carbon	5	Page 20 Figure 1	Operational Net Zero (Regulated Energy)	6	Page 18 Policy NZA1	net zero operational regulated carbon emissions	<p>Comment noted. Although the wording differs slightly in each section, the modifications provide factual clarification that the DPD relates to regulated operational energy and associated carbon emissions.</p> <p>The Council does not consider the comment raises any issues of soundness or legal compliance.</p>
Item	Location	Terminology used																							
1	Page 16 Para 4.2.1 Objective 1	net zero regulated carbon																							
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6	Page 18 Policy NZA1	net zero operational regulated carbon emissions																							

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response
			We look forward to engaging with the Council again in the future	
85869	Warwick District Council	PMM1 to PMM20	At its 5 th July Cabinet meeting the Cabinet approved recommendations in a report titled 'Net Zero Carbon Development Plan Document (DPD) Update'. Recommendation 2 was as follows: That Cabinet endorses the Main Modifications as set out in the current Main Modifications consultation and confirm that they do not wish to make any representations to that consultation.	Comment noted.
85870	Warwickshire County Council (Infrastructure Planning Lead – Strategic Growth and Infrastructure)	N/A	Just a very quick email to make you aware that I have received no comments from colleagues across the County Council in respect of the main modifications.	Comment noted.
85871	Kenilworth Town Council	N/A	Kenilworth Town Council have reviewed the Major Modifications made by the inspector. We have no objection to the modifications and appreciate the clarification that they provide to the policies.	Support noted.
85872	Kenilworth Town Council	PMM10	Overall the inspectors' changes are to be welcomed as they make clear the DPD will deliver net zero regulated carbon (clause 4.2.1) - not all carbon. However, this is not reflected in the title which should be changed to reflect the new definition.	Support for PMM10 noted. The title of the DPD was discussed at the Examination hearings. The Council consider the title of the DPD adequately describes the subject matter of the DPD and does not consider the comment raises any issues of soundness or legal compliance.
85873	The Coal Authority	N/A	Thank you for your notification received on the 5 th June 2023 in respect of the above consultation. The Coal Authority is a non-departmental public body sponsored by the Department for Energy Security and Net Zero. As a statutory consultee, The Coal Authority has a duty	Comment noted.

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response
			<p>to respond to planning applications and development plans in order to protect the public and the environment in mining areas.</p> <p>Our records do not indicate the presence of any coal features at surface or shallow depth within the Warwick District area. On this basis we have no specific comments to make on the Main Modifications proposed.</p>	
85874	Historic England	N/A	Thank you for consulting Historic England on the above document. As the Government's adviser on the historic environment, Historic England is keen to ensure that the conservation and enhancement of the historic environment is fully taken into account at all stages and levels of the development plan document (DPD).	Comment noted.
85875	Historic England	N/A	Historic England commented on the Warwick District Council Net Zero Carbon DPD Consultation Draft and also on the SA/SEA/HRA Screening and Scoping Report for the DPD in 2021. We have no comments to make on the proposed Main Modifications to the Published Submission Version of the DPD. However, in light of our previous comments, we are pleased to see that the proposed Main Modifications document encompasses references to the historic environment and that the scope of the DPD has been widened from just focusing on new buildings, to referencing the retention and re-use of existing buildings.	Support noted
85876	Historic England	N/A	We are particularly pleased to see the inclusion of Policy NCZ4: Existing Buildings in the DPD and the clause covering the sensitive retrofitting of energy efficiency measures and the appropriate use of micro-renewables in historic buildings.	Support noted.
85877	Historic England	N/A	We also welcome Policy NCZ3: Embodied Carbon and the requirement for the whole[1]life assessment of materials for new development above certain thresholds	Support noted.
85878	Historic England	N/A	Historic England recognises the urgent need for positive action in relation to the global climate crisis and is committed to the achievement of net zero carbon emissions.	Comment noted.
85879	Historic England	N/A	This opinion is based on the information provided by you in the documents dated May 2023 and, for the avoidance of doubt, does not affect our obligation to advise you on, and potentially object to, any specific proposal which may subsequently arise	Comment noted.

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response
			from this or later versions of the documents which are the subject to consultation, and which may have adverse effects on the environment.	
85880	Dr Guy Barker	N/A	The net zero plan refers to the new housing but yet again the potential for using a district heating system which would power the new estates has not been considered. Introduction of such schemes have been demonstrated to be capable of driving significant change and helping the heating to become more efficient and to be cost effective. Can this not be included. I would suggest Gussing in Austria as an example to be followed	The comment is not a specific response to any of the Main Modifications. The use of district heating as a technology to help comply with the NZC policies is considered in the forthcoming SPD guidance.
85881	Anna Corser	N/A	I have been through all this and want to support it.	Support noted.
85882	Katherine Geddes (Warwick Town Council)	N/A	Warwick Town Council considered the Main Modifications on the Warwick District Net Zero Carbon DPD at its Planning Committee meeting on 15th June 2023 and has the following comments to register on it:	Comment noted.
85883	Katherine Geddes (Warwick Town Council)	N/A	The modifications proposed provide reasonable and useful textual and factual clarifications.	Comment noted.
85884	Katherine Geddes (Warwick Town Council)	N/A	Noted with interest that the Net Zero Carbon DPD will supersede the Sustainable Buildings SPD (2008) – supplementary guidance will also be available	Comment noted. A Draft of the Supplementary Guidance to support the NZC DPD is expected to be consulted on in September 2023.
85885	Katherine Geddes (Warwick Town Council)	PMM19	Also noted and supported the new Carbon Offset Fund – separate to CIL and Section 106 funding, will be used to deliver carbon-saving interventions which would not be otherwise deliverable.	Support noted.
85886	Katherine Geddes (Warwick	PMM14	Only one proposed change to policy wording – PMM14 and Policy NZC2(b)	Comment noted.

Rep ID	Respondent Name	Main Modification Ref	Representation	Council response
	Town Council)			
85887	Katherine Geddes (Warwick Town Council)	PMM15	Local Plan Policy CC3 expanded but BREEAM standard of Very Good to still be included for major non-residential schemes – this is supported.	Support noted.
85888	Natural England	N/A	Natural England does not have any specific comments on the Main Modifications proposed for the Warwick District Net Zero Carbon Development Plan Document.	Comment noted.

4 Conclusion

- 4.1 This Statement describes how the Council has undertaken the Main Modifications consultation and includes the comments received to that consultation.
- 4.2 At its Cabinet meeting on 5th July 2023 the Council endorsed the Main Modifications as set out in the Main Modifications consultation.
- 4.3 Having considered the comments made in response to the Main Modifications consultation, the Council does not consider that the comments raise any issues of soundness or legal compliance. The Council accordingly looks forward to receipt of the Inspector's report.
- 4.4 Should the Inspector seek any further response from the Council with regard the comments to the Main Modification consultation, the Council will respond at its earliest opportunity.

Appendix 6- Draft DPD Adoption Statement

Warwick District Council

**Warwick District Net Zero Carbon Development Plan Document (DPD)
Adoption Statement**

The Town and Country Planning (Local Planning) (England) Regulations 2012

Notification under Regulations 26 and 35

Title: Warwick District Council Net Zero Carbon DPD

Area Covered: The Warwick Net Zero Carbon DPD covers the administrative area of Warwick District Council.

Subject Matter: The Warwick Net Zero Carbon DPD is a Development Plan Document expanding on the existing Local Plan policies and introduces standards for development in terms of energy efficiency that will positively contribute to climate change targets set by both local and central government since the adoption of the Local Plan. The DPD sets out policies that aim to ensure new development reduces carbon emissions as much as possible towards achieving national and local carbon reduction targets, including the Council’s net zero carbon target by 2030. The DPD aims to ensure that all new development should be net zero carbon in operation. For the purposes of this DPD, net zero carbon relates to regulated carbon energy which results from fixed building services and fittings.

The DPD will form part of the Development Plan for the District and therefore decisions on planning applications must be made in accordance with it, unless other material considerations indicate otherwise. The DPD adoption date is **16th May 2024**.

Examination: The Net Zero Carbon DPD has been subject to examination by an independent Inspector appointed by the Secretary of State and a number of modifications were made to the DPD as set out in the Schedule of Main Modifications that accompanied the Inspector’s Report. Pursuant of Section 23 (3) of the Planning and Compulsory Purchase Act 2004, the adopted DPD incorporates these modifications.

Inspection: A copy of the DPD as adopted together with the Sustainability Appraisal adoption statement , the Inspector’s Report, schedule of main modifications and schedule of additional modifications are available to view on the Net Zero Carbon DPD webpage: [Warwick NZC DPD-warwickds.gov.uk](http://warwickds.gov.uk)

Hard copies of the adopted DPD, the Sustainability Appraisal adoption statement and the Inspector’s Report are also available to view at the following locations during their normal opening hours:

Name of the venue	Opening Times
Town Hall The Parade Leamington Spa Warwickshire CV32 4AT	Mon-Thurs- 8:45-17:15 Fri- 8:45-16:45
Kenilworth Library, Smalley Place	Mon/Tues/Thurs/Fri- 9:00-17:30

Kenilworth CV8 1QG	Weds- 10:00-17:30 Saturday- 9:00-13:00
Leamington Spa Library and Information Centre, Royal Pump Rooms Parade Leamington Spa CV32 4AA	Mon/Tues/Weds/Fri- 9:30-18:00 Thurs- 10:00-19:00 Saturday-9:30-16:30 Sunday-12:00-16:00
Lillington Library and Information Centre, Valley Road Lillington Leamington Spa CV32 7SJ	Mon/Thurs- 9:30-12:30 and 13:30-18:00 Tues/Fri- 9.30am to 12.30 and 13:30-17:30 Weds- Closed Saturday-9:30-12:30
Warwick Library and Information Centre, Shire Hall Warwick CV34 4RL	Mon-Thurs- 8:00-17:30 Fri- 8:00-17:00 Saturday- 9:00-16:00
Whitnash Library and Information Centre, Acre Close Whitnash CV31 2ND	Mon-Tues- 10:30-17:00 Weds- 13:30-17:00 Thurs-Closed Fri- 10:30-16:00 Saturday-10:30-13:30
Brunswick Healthy Living Centre, 98-100 Shrubland St, Leamington Spa CV31 3BD 01926 422123	Mon-Fri- 9:30-15:00

Challenge: Any person aggrieved by the Warwick District Net Zero Carbon DPD may make an application to the High Court under Section 113 of the Planning and Compulsory Purchase Act 2004, on the grounds that:

- a) the document is not within the appropriate power (i.e., the Council has acted beyond its legal power or authority in producing it).
- b) a procedural requirement has not been complied with.

An application must be made promptly, and in any event, no later than the end of the period of six weeks of the date of the adoption of the DPD i.e., **by 27th June 17:00.**

For further information please contact the Warwick District Council Planning Policy section by e-mail: planningpolicy@warwickdc.gov.uk or telephone: 01926 456017.

Appendix 7- Draft Sustainability Appraisal Adoption Statement



Warwick District Council Net Zero Carbon DPD

Sustainability Appraisal (SA)
incorporating **Strategic Environmental
Assessment (SEA)**

SA ADOPTION STATEMENT

May 2024



Warwick District Council Net Zero Carbon Development Plan Document

Sustainability Appraisal (SA) incorporating Strategic Environmental Assessment (SEA)

SA ADOPTION STATEMENT May 2024

Date:	May 2024 final	
Prepared for:	Warwick District Council	
Prepared by:	Barbara Carroll	Enfusion
Quality assurance:	Barbara Carroll	Enfusion

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Development of the Warwick Net Zero Carbon DPD	2
How environmental & sustainability considerations have been integrated into the DPD; How the Sustainability/Environmental Report has been taken into account	3
How the results of consultation have been taken into account	6
Reasons for choosing the DPD as adopted, in the light of other reasonable alternatives	7
Measures that are to be taken to monitor the significant sustainability/environmental effects of the implementation of the DPD	7

This SA Adoption Statement

- 1 Sustainability Appraisal (SA) is a systematic process that must be carried out during the preparation of a Local Plan relating to development – as set out in Section 19 of the Planning and Compulsory Purchase Act 2004 and in paragraph 32 of the National Planning Policy Framework (NPPF¹, updated 2019, revised 2021 & updated 2023).
- 2 SA incorporates the requirements for Strategic Environmental Assessment (SEA) that seeks to provide a high level of protection of the environment and to contribute to promoting sustainable development by integrating environmental considerations into the process of preparing certain plans and programmes. The EU Directive is implemented in the UK through the SEA Regulations (2004)².
- 3 The Authority is also required to undertake a Habitats Regulations Assessment (HRA) of the DPD. The HRA process has its own legislative drivers and requirements. Whilst the different processes can inform each other, it is important that the HRA remains distinguishable from the wider SA process. The HRA process has been undertaken in parallel to the SA and its findings have informed the SA and have been reported together.
- 4 The SA process comprises a number of stages that are designed to comply with the requirements of the SEA Regulations and as guided through Government Planning Practice³. This SA Adoption Statement satisfies the SA/SEA requirements for post adoption (Stage E) and demonstrates compliance with the requirements of the SEA Regulations as follows:
 - (a) *how environmental considerations have been integrated into the plan or programme;*
 - (b) *how the environmental report has been taken into account;*
 - (c) *how opinions expressed in response to— (i) the invitation referred to in regulation 13(2)(d); (ii) action taken by the responsible authority in accordance with regulation 13(4), have been taken into account;*
 - (d) *how the results of any consultations entered into under regulation 14(4) have been taken into account;*
 - (e) *the reasons for choosing the plan or programme as adopted, in the light of the other reasonable alternatives dealt with; and*
 - (f) *the measures that are to be taken to monitor the significant environmental effects of the implementation of the plan or programme.*
- 5 SA should demonstrate how the plan has addressed relevant economic, social, and environmental objectives (including opportunities for net gains). Significant adverse impacts on these objectives should be avoided and, wherever possible, alternative options which reduce or eliminate such impacts should be pursued.

¹ <https://www.gov.uk/government/publications/national-planning-policy-framework--2>

² <https://www.legislation.gov.uk/ukxi/2004/1633/contents/made>

³ <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal>

Development of the Warwick Net Zero Carbon Development Plan Document

- 6 The overarching development plan document for the Warwick District area is the Local Plan that was adopted in September 2017⁴. Warwick District Council declared a Climate Emergency⁵ on 27 June 2019. This recognises that the current global target to cut carbon emissions by 80% by 2050 is unlikely to be enough to avoid a catastrophic change in our climate. Declaring such a Climate Emergency makes it a requirement to take immediate action to drastically reduce carbon emissions.
- 7 The Council's climate change ambitions were further refined (agreed at meeting 8 July 2021) and, with shared ambitions for Warwick DC and Stratford-on-Avon DC adopted and the recommendations of the People's Inquiry into climate change incorporated into the programme of work (subject to being able to identify appropriate resources). The joint Climate Change Action Programme⁶ was agreed in November 2021.
- 8 A key aspect is to develop and implement policies that will deliver improved net zero carbon building standards. The Warwick Net Zero Carbon DPD provides the building standards policies to achieve this and (except where policies within the existing Local Plan are replaced by the DPD), these policies supplement those within the adopted Warwick District Local Plan, 2011 – 2029. The DPD outlines the issues facing the Council with regard to climate change and sustainable methods of construction and occupation in order to guide new development to help facilitate delivery of these commitments.
- 9 The DPD has been prepared in line with recent Government recommendations, for example, from Preparing for Climate Change (2019)⁷ and in consideration of the IPCC Special Report on global warming (2018)⁸, and the update to Planning Practice Guidance (2019) that asserts addressing climate change is one of the core land use planning principles that the NPPF expects to underpin plan-making and decision-making. The DPD has been developed iteratively with various technical studies and wide consultation; such evidence is available on the Council's website⁹.
- 10 In accordance with the Council's adopted Statement of Community Involvement (SCI January 2016 & updated April 2020), at each stage of the development of the DPD, formal and public consultation was undertaken to help ensure that stakeholders' views were taken into consideration in the next steps of plan preparation. Issues raised, and responses prepared have been

⁴ https://www.warwickdc.gov.uk/info/20410/new_local_plan

⁵ https://www.warwickdc.gov.uk/info/20468/climate_change/1437/climate_emergency_declaration

⁶ https://www.warwickdc.gov.uk/info/20468/climate_change/1718/climate_emergency_action_programme

⁷ <https://www.theccc.org.uk/>

⁸ <https://www.ipcc.ch/sr15/chapter/spm/>

⁹

https://www.warwickdc.gov.uk/info/20799/development_plan_documents/1713/net_zero_carbon_development_plan_document

documented during the development of the DPD and published on the Council's website¹⁰.

- 11 The draft Warwick Net Zero Carbon DPD was submitted to the Secretary of State on 17 October 2022 for independent examination by a Planning Inspector. The examination hearings were held between 7 and 9 March 2023¹¹. The Inspector in his post hearing letter of 30 March 2023 [EXAM-12] advised that main modifications (MMs) to the submission DPD would be required to be made for reasons of soundness before the DPD could be adopted. Following additional work, the proposed MMs to the NZC DPD were published for public consultation between 5 June and 18 July 2023, including where necessary Sustainability Appraisal and Habitats Regulations Assessment.
- 12 The Inspector in his final report (9 April 2024) found that the the SA has been undertaken in a proportionate and equitable way. It has considered reasonable alternatives appropriately, setting out why alternatives have been rejected and has followed the relevant Regulations and is therefore adequate. As a result, he was satisfied that the approach to the SA is robust and that the necessary procedural and legal requirements have been met. The Inspector concluded that, with the recommended main modifications, the Warwick Net Zero Carbon DPD satisfies the requirements of Section 20(5) of the 2004 Act and meets the criteria for soundness in the National Planning Policy Framework.

How environmental & sustainability considerations have been integrated into the DPD; How the Sustainability/Environmental Report has been taken into account

- 13 During the plan-making process, SA (incorporating SEA) has been carried out as an iterative and ongoing process to inform decision making for the developing DPD. The SA was undertaken in accordance with government guidance¹² which encourages a staged approach that integrates appraisal to consider the effects of the emerging plan on socio-economic as well as environmental factors. Since 2019, independent specialist consultants were appointed to carry out the SA for the Council. They worked closely with the plan-making team in an iterative way such that the findings and recommendations from the SA were integrated into each developing stage of the DPD.
- 14 The SA built upon the previous SA work undertaken during the development of the Local Plan – for consistency and correlation. The SA method was refined to be focused on the Net Zero Carbon DPD with relevant sustainability topics and issues. The opportunity was taken to update the assessments in line

¹⁰

https://www.warwickdc.gov.uk/info/20794/supplementary_planning_documents_and_other_guidance/263/statement_of_community_involvement#:~:text=The%20SCI%20formally%20sets%20out,will%20consult%20on%20planning%20applications.

¹¹ https://www.warwickdc.gov.uk/info/20799/development_plan_documents

¹² <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal>

with the revised NPPF and the updated requirements for HRA. The scope of the SA was subject to formal and public consultation during late 2019.

- 15 The refined SA Framework was used as the basis for assessing the emerging DPD - and as explained in Section 2 of the submitted SA Report (March 2022). Relevant plans/programmes had been reviewed; baseline information regarding the character of the area and its likely evolution collated and analysed; and sustainability problems, issues and opportunities had been identified during the SA scoping to compile a Framework of Objectives and Sub-Objectives/Decision-Aiding Questions that seek to resolve the sustainability issues identified and relevant to the DPD and the Warwick District Council area. The assessment used both quantitative and qualitative assessments, including defined thresholds of significance, where possible.
- 16 The SA considered the likely significant effects of the implementation of the DPD on the sustainability objectives for the Warwick District Council area. For each aspect of the DPD, the assessment against the SA Objectives was recorded with a narrative describing any significant effects identified, mitigation of any significant negative effects, and any suggestions for enhancing potential beneficial effects. In line with requirements of the SEA Regulations, the appraisal considered effects including short, medium, and long term, permanent, and temporary, positive, and negative, secondary, cumulative, and synergistic, wherever possible and relevant. Any gaps or difficulties were also reported. The SA was informed by best available information to assess the effects of the policies and of the Net Zero Carbon DPD as a whole.
- 17 SA Objectives were grouped within sustainability themes and a narrative used to report the likely significant effects of the policies and the draft DPD as a whole. The SA found major positive effects for the sustainability themes of housing, communities, health, and wellbeing – and air quality and climate change. By addressing additional factors – zero or low carbon energy sources, offsetting carbon, and existing buildings – the DPD contributes more than just applying the national approach for improving energy efficiency. It also implements such requirements earlier by aiming to achieve net zero carbon as close as possible to 2030 (rather than 2050) indicating wider and more positive effects.
- 18 Thus, the Council is dealing with carbon emissions now - seeking to provide healthy indoor living environments and contribute to reducing the risks to health from extreme weather conditions through addressing climate change effects proactively. Such an approach may also reduce the costs of dealing with climate change later and in the longer term.
- 19 The SA found minor positive effects for SA objectives on the economy, the natural environment, and the historic environment. DPD Policy NZC1 sets the overarching strategy for achieving net zero carbon development with major positive effects indicated by taking a proactive approach now. Such a stricter policy than the national approach has the potential to affect the deliverability and viability of development proposals. This could result in a reduction in the rate of housing delivery – with a concomitant reduction in

positive effects for health and wellbeing. However, the Council has undertaken a high-level viability impact assessment and development viability is unlikely to be threatened by the local requirement.

- 20 The SEA Regulations require consideration of reasonable alternatives. The SA tested 3 scenarios for the DPD – Do Nothing; National Approach to Improving Energy Efficiency; DPD with policies on Energy Efficiency, Energy Sources, Offsetting Carbon, Embodied Carbon, and Existing Buildings. The testing included comparative assessment and the findings are reported in section 4 of the submitted SA Report (March 2022).
- 21 Doing nothing means that the developments would still be assessed under the adopted Local Plan policies that will require retrofitting as the adopted policies are not as stringent as the DPD policies. The LP is undergoing a review as a part of the joint South Warwickshire Local Plan.
- 22 The SA found potential minor negative effects for sustainability themes Economy, Housing & Health, Air Quality and Climate Change, Natural Environment, and Historic Environment – but with uncertainties as to the extent of the significance of such effects. Doing nothing does not progress the objectives of the climate change emergency declared by the Council and including the commitments to become a net zero carbon organisation by 2025 and to facilitate others so that total carbon emissions within Warwick District are as close to zero as possible by 2030.
- 23 The National Approach Scenario for improving energy efficiency in buildings will have positive effects for housing, communities, health, and wellbeing – but in the longer term since the intentions are to progress to net zero carbon by 2050. The standard for future homes and buildings may not be introduced until 2025. The SA also found positive effects for the themes on Economy, Air Quality and Climate Change, the Natural Environment, and the Historic Environment, but with some uncertainty about the significance of positive effects – due to the debate over net zero/net negative and the longer timescale.
- 24 Thus, relevant alternatives have been tested through the SA process in an iterative way to inform plan-making. The SA reported outline reasons for progressing or rejecting options and in accordance with the requirements of the SEA Regulations.
- 25 The Habitats Regulations Assessment (HRA) found that the Net Zero Carbon DPD is considered unlikely to have significant effects on any European sites, alone or in-combination with other plans and projects. The findings and recommendations of the SA informed plan-making and were integrated into the development of the DPD - and as set out in the Submitted SA Report (March 2022).
- 26 Following submissions to the examination and discussions at the hearings, proposed Main Modifications (MMs) to the NZC DPD were prepared and subject to SA. Most amendments are for updating the existing policies to make reference and show correlation to the existing LP policies and to

provide further clarity and as such are not significant for SA and HRA. These matters were explained and assessed in the SA & HRA Addendum Report (May 2023) accompanying the proposed Main Modifications to the DPD. The MMs were screened and none were identified as potentially significant for SA/SEA nor HRA, and therefore, no further work was necessary. Thus, the previous findings of the SA/SEA remain relevant and valid. It was confirmed that there will be no significant negative effects and that positive effects have been optimised. The previous findings of the HRA remain relevant and valid - the Warwick NZC DPD will not have adverse effects on the integrity of protected sites, alone or in combination.

How the results of consultation have been taken into account

- 27 Consultation is an important aspect of SA and there was statutory and public consultation at each key stage of the DPD preparation and the SA as follows:

Warwick Net Zero DPD Stage and Documents Consultation	SA/SEA Stage and Documents Consultation
Initial Evidence Gathering & Technical Studies	SA/SEA Scoping & HRA Screening Report (May 2021) Consultation with statutory environmental bodies (Environment Agency, Natural England, Historic England) May – June 2021
Draft NZC DPD Regulation 18 Consultation: (26 July – 13 September 2021)	Initial SA/HRA Report (September 2021) Consultation: (26 July – 13 September 2021)
Draft NZC DPD Regulation 19 Consultation:	SA/HRA Report (March 2022) Consultation :
Examination Hearings 7-9 March 2023	
NZC DPD Main Modifications Consultation : 5 June – 18 July 2023	SA/HRA Addendum Note (May 2023) Consultation:

- 28 SA and consultation responses have been considered in an iterative and ongoing way with the plan-making process and in accordance with the requirements of the SEA Regulations. Representations have been recorded and the responses made to issues and concerns raised have been published, including at key statutory stages – SA Scoping and Regulation 19.

Reasons for choosing the DPD as adopted, in the light of other reasonable alternatives

- 29 The SEA Regulations require assessment of the likely significant effects of implementing the plan and “reasonable alternatives” taking into account the objectives and geographical scope of the plan; and the reasons for selecting alternatives should be outlined in the Report. The UK Government’s planning practice guidance¹³ states that “reasonable alternatives are the different realistic options considered by the plan-maker in developing the policies in its plan. They must be sufficiently distinct to highlight the different sustainability implications of each so that meaningful comparisons can be made. The alternatives must be realistic and deliverable”.
- 30 The main reason for progressing the NZC DPD rather than the Do-Nothing or the National Approach to Improving Energy Efficiency is that the strategy set out in the DPD progresses the Council’s climate change commitments. The other two scenarios do not progress the Council’s commitments for becoming a net zero carbon organisation by 2025 and facilitating the total carbon emissions within Warwick District as close to zero as possible by 2030. There is some evidence to suggest that taking such a proactive approach now will reduce the costs of dealing with climate change later.
- 31 The Do-Nothing scenario will progress towards net zero carbon for 2050 with positive effects but some uncertainties of significance. The National Approach will not implement stricter standards on energy efficiency in buildings until 2025. The NZC DPD addresses additional factors - zero or low carbon energy sources, offsetting carbon, and existing buildings – such that it will contribute more reduction in carbon emissions.

Measures that are to be taken to monitor the significant sustainability/environmental effects of the implementation of the DPD

- 32 The SEA Regulations require that the significant environmental effects of implementing the plan should be monitored with the purpose of identifying unforeseen adverse effects at an early stage and being able to undertake appropriate remedial action. Local Planning Authorities are required to produce Monitoring Reports on the progress of Local Plans. Government Guidance on SA/SEA advises a pragmatic approach with shared monitoring for the SA/SEA and the Plan.
- 33 The Warwick NZC DPD includes that monitoring the funds and progress made through adoption of the policies will be included in the Authority Monitoring

¹³ <https://www.gov.uk/guidance/strategic-environmental-assessment-and-sustainability-appraisal>

Report (AMR)¹⁴ produced annually. It is considered that the indicators in the AMR relate to the SA indicators and they will be sufficient to identify any unforeseen adverse effects at an early stage and provide information on the predicted effects from the SA. Therefore, no additional proposed monitoring that might be required as part of the SEA process was indicated from the findings of the SA.

¹⁴ https://www.warwickdc.gov.uk/info/20376/planning_policy/270/monitoring_reports

APPENDIX 8: Net Zero Carbon Supplementary Planning Document (updated following public consultation)

Warwick District Council

Net Zero Carbon Supplementary Planning Document

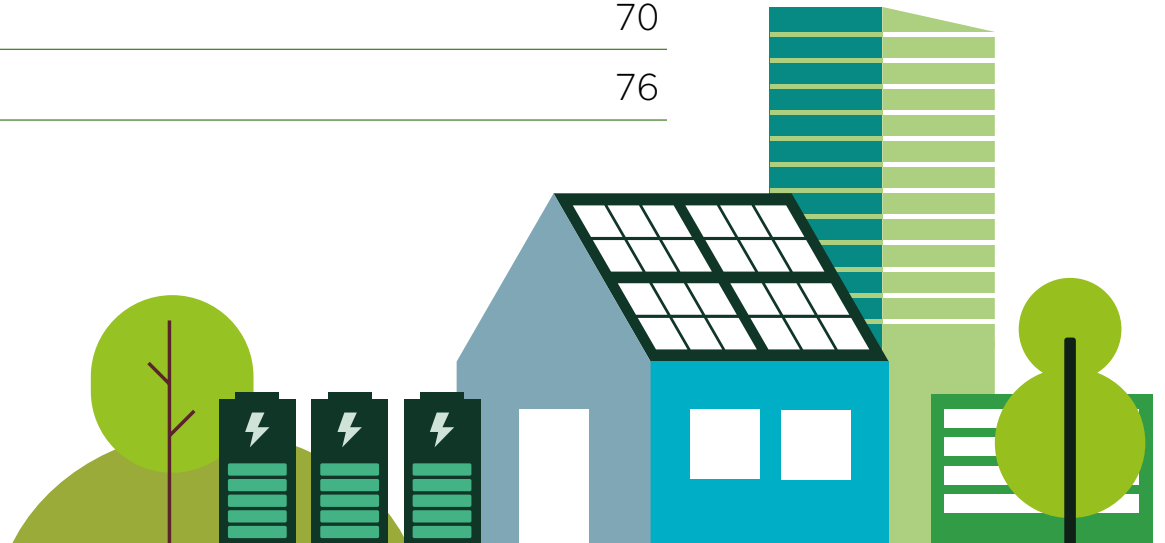


Warwick District
Prepared for: Warwick District Council
May 2024



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1. Introduction



1.1

In June 2019 Warwick District Council declared a climate emergency. Following this declaration, the Council made the commitment to reduce total carbon emissions to as close to zero as possible by 2030.



1.2

The Council's Climate Emergency Action Plan recognised the importance of the built environment in reducing carbon emissions and have implemented the Net Zero Carbon Development Plan Document (NZC DPD).



1.3

The NZC DPD aims to minimise carbon emissions from existing and new buildings within the District to support the achievement of national and local carbon reduction targets. From adoption, the DPD will aim to ensure new development should be net zero carbon in operation. For the purposes of this DPD net zero carbon relates to regulated operational energy, which results from fixed building services and fittings (space heating, cooling, hot water, ventilation and lighting).

1.4

To work towards this aim, the DPD is designed to ensure that new development's contribution to the District's carbon deficit is minimised and that new homes do not add to the significant number of existing buildings in the District that will need costly and disruptive retrofit as part of the local and national transition to achieve net zero carbon.

1.5

The purpose of this Supplementary Planning Document (SPD) is to assist applicants in implementing the policies of the NZC DPD by providing technical guidance to inform the design of developments, and to illustrate what measures applicants need to consider in the preparation of an Energy Statement. Furthermore, an Energy Pro-Forma has been prepared, and is annexed to this SPD, which outlines the technical calculations required to be submitted by applicants in compliance with the NZC DPD policies.

1.6

This document is being prepared as a Supplementary Planning Document (SPD) under Regulation 14 of the Town & Country Planning Regulations (Local Plan) 2012, as amended.

1.7

The SPD has been subject to consultation during October–November 2023. The SPD has been revised considering the comments received during the consultation. Upon adoption this guidance will be a material consideration in deciding planning applications within Warwick District.

1.8

The format of this SPD provides supplementary information and technical guidance relating to the six NZC DPD policies and follows the energy hierarchy to identify how applicants can: reduce energy demands through fabric efficiency, utilise zero or low carbon energy sources, and offset any remaining carbon emissions. The SPD also provides guidance on embodied carbon assessments and how existing buildings can be retrofitted to reduce carbon emissions.



2.

Validation Checklist



2. Validation Checklist

2.1

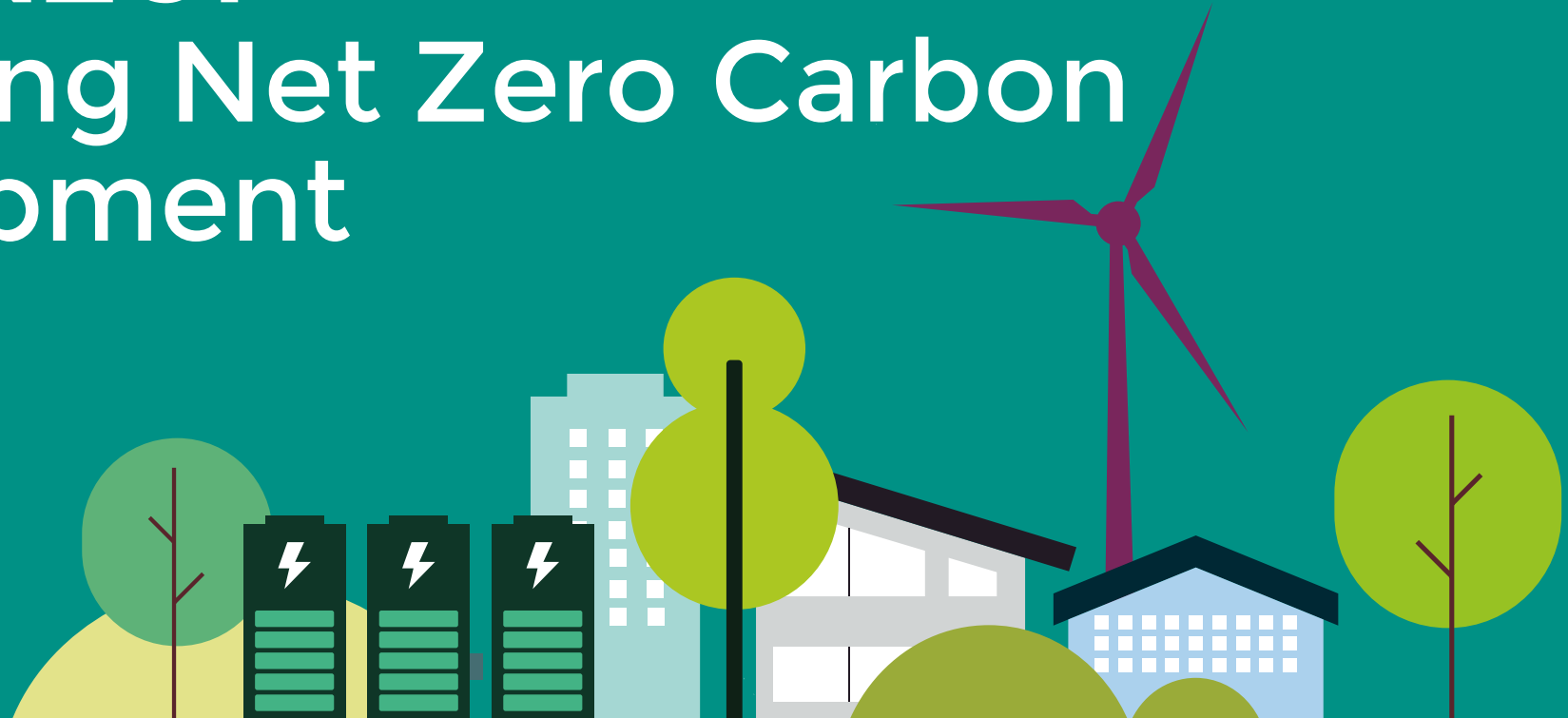
To demonstrate compliance with the NZC DPD policies the following documentation will be required to be submitted with planning applications of the relevant type and size. On adoption of this guidance these requirements will be added to the Council's Local Validation List that sets out the information required for validation, assessment and determination of planning applications.



What Document?	When/What needed
Energy Statement	<p>New development of one or more dwellings (C3 or C4 use class) and/or 1,000sqm or more of new non-domestic floorspace – Gross Internal Area (GIA) including non-residential floorspace, hotels (C1 use class) or residential institutions (C2 use class).</p> <p>A statement should be submitted which outlines technical information relating to the compliance with energy efficiency and carbon emissions reduction requirements of the Net Zero Carbon DPD.</p> <p>Applicants should provide within their Energy Statement:</p> <ol style="list-style-type: none"> 1. A completed Energy Pro-Forma – see Annex of this SPD. This includes the calculation of the Building Regulations Part L Target Emission Rate (TER) for the building type, the % reductions achieved against this TER, and if required a carbon offset calculation. 2. Description of the proposed energy efficiency measures (including passive measures), their suitability and effectiveness for the development proposed, and the energy efficiency benefits they impart to the design to comply with Policy NZC2A. 3. Description of the proposed zero- or low-carbon energy sources, their suitability and effectiveness for the development proposed and carbon emission reductions they impart to the design to comply with Policy NZC2B and achieve on site net zero regulated carbon. 4. Where Policies NZC2(A), NZC2(B) and on-site net zero regulated carbon are not achieved, justification for why this is not feasible having regard to the development proposed. <p>More information on how to demonstrate compliance against each of the NZC DPD policies is provided throughout this SPD.</p>
Embodied Carbon Assessment	<p>New major development should demonstrate in the energy statement how the embodied carbon of the proposed materials to be used in the development has been considered and reduced where possible, including with regard to the type, life cycle and source of materials to be used.</p> <p>Proposals for development of 50 or more new dwellings and/or 5,000sqm or more of new non-residential floorspace should be accompanied by a whole-life embodied carbon assessment of the construction.</p>
Existing Buildings	<p>Existing Buildings (householder, extensions and conversions) to demonstrate compliance with Policy NZC4 using Energy Proforma – see SPD Annex Part 2.</p>

3.

Policy NZC1 Achieving Net Zero Carbon Development



3.1

Policy NZC1 expresses the overarching approach to ‘net zero carbon’ development. This definition refers only to **operational, regulated carbon**.

- *Operational* means only the carbon emitted during the in-use phase of the building;
- *Regulated* means only the share of those operational carbon emissions that are from an energy use that is regulated by Building Regulations, for example heating and hot water systems, or fixed lighting circuits.

Policy NZC1: Achieving Net Zero Carbon Development

New development of one or more new dwellings (C3 or C4 use class) and/or 1,000sqm or more of new non-residential floorspace, hotels (C1 use class) or residential institutions (C2 use class) should achieve net zero operational regulated carbon emissions by implementing the energy hierarchy.

Proposals should demonstrate application of the energy hierarchy through submission of an energy statement which identifies:

- i. For new dwellings, a minimum 63% reduction in carbon emissions is achieved by on-site measures, as compared to the baseline emission rate set by Building Regulations Part L 2021 (SAP 10.2).
- ii. In non-residential buildings, hotels and residential institutions at least a 35% reduction in carbon emissions through on-site measures compared to the rate set by Building Regulations 2013 (or equivalent percentage

reduction on Building Regulations 2021).

- iii. Compliance with the energy efficiency and renewable energy provisions set by policies policy NZC2(A) & (B) and by presenting the carbon savings achieved across each step of the energy hierarchy (demand reduction, efficient supply, renewable and other low-carbon technology).
- iv. Any residual operational regulated carbon emissions (over the course of 30 years) will be calculated and offset to zero in accordance with policy NZC2(C). Offsetting will only be considered an acceptable solution to net zero carbon requirements if it can be demonstrated that carbon reductions achieved via on-site measures (and near-site renewables) are demonstrably unfeasible or unviable.

Where full compliance is not feasible or viable, proposals must demonstrate through the

energy statement that carbon reductions to the greatest extent feasible have been considered and incorporated through applying the energy hierarchy. In applying the energy hierarchy, proposals are expected to implement fabric energy efficiency and low carbon heating before incorporating renewable electricity generation and then offsetting.

A condition will be applied to planning permissions requiring as built SAP or SBEM calculations to be submitted prior to occupation and demonstrating that the finished building meets the standard set in Policy NZC1.

Alternatively, applications may demonstrate the requirements of Policy NZC1 are met through the Passivhaus standard with accompanying PHPP calculations submitted within the energy statement (without the use of fossil fuels on site including gas). A condition will be applied requiring Passivhaus certification prior to occupation.

3.2

The net zero carbon requirements of Policy NZC1 are applicable to development that creates one or more dwelling (C3 or C4), or 1,000m² (GIA) of non-domestic floor space (including C1 hotels, C2 residential institutions and other non-residential development).

3.3

Applicants are required to reach net zero carbon by following the Energy Hierarchy as shown in Figure 1.

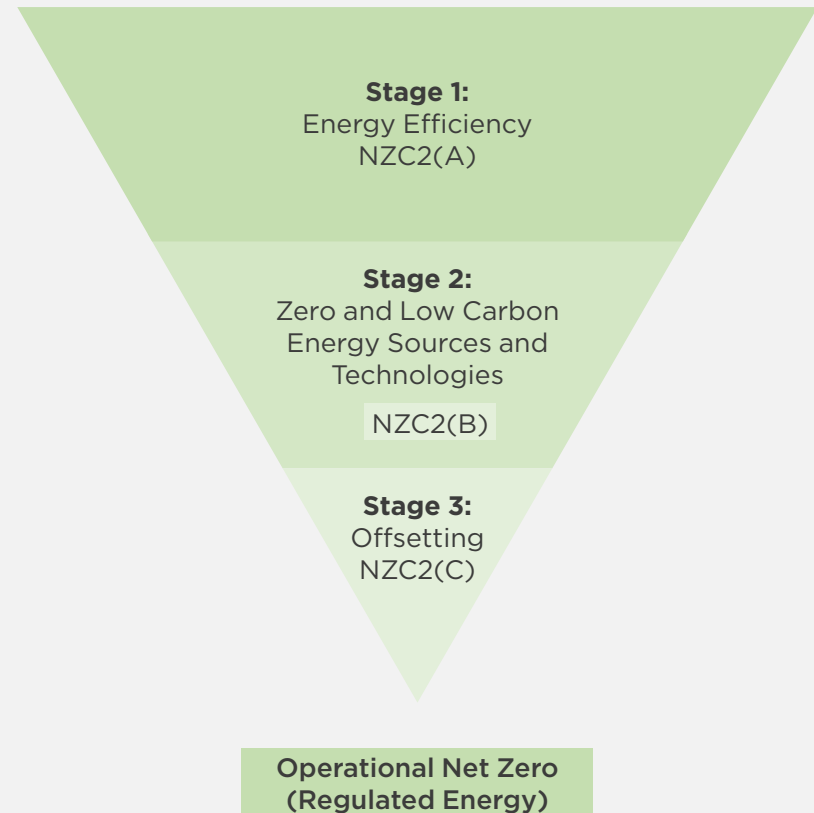
3.4

These requirements are also summarised overleaf in Table 1: Summary of Policy NZC1 requirements by building type.



Figure 1: Energy Hierarchy

Overall emissions reduction target to achieve net zero carbon buildings (NZC1)



3. Policy NZC1 – Achieving Net Zero Carbon Development

Table 1: Summary of Policy NZC1 requirements by building type.

Use type	Baseline measure	Minimum on-site improvement on baseline required by Policy NZC1	Further information
Residential (one or more dwellings)	Part L 2021 Target Emissions Rate (notional dwelling, with gas boiler)	63% reduction compared to a baseline of Part L of the Building Regulations 2021. Dwelling Emissions Rate \leq (Target Emissions Rate -63%)	Equivalent to the carbon reduction anticipated to be achieved by the Future Homes Standard (2021 specification), which is expected to become the new national minimum requirement from 2025.
	OR: Achieve Passivhaus certification and not use fossil fuels on site for the operation of the building.		Passivhaus certified homes represent a significant improvement in energy performance even beyond the Future Homes Standard. For compatibility with national and local carbon budgets, fossil fuel must still not be used.
Non-domestic (of 1,000m² GIA or more)	Part L 2013 Target Emission Rate (notional building, with gas boiler)	35% reduction compared to a baseline of Part L of the Building Regulations 2013. [Building Emissions Rate \leq (Target Emissions Rate -35%)]	Small improvement beyond Part L 2021 (which delivers ~27% carbon improvement on 2013').
	OR: Achieve Passivhaus certification and not use fossil fuels on site for the operation of the building.		Passivhaus certified buildings represent a major improvement in energy performance even beyond Part L 2021. For compatibility with national and local carbon budgets, fossil fuel must still not be used.
All	Deliver required energy efficiency (NZC2(A)) and low-carbon/renewable energy supply (NZC2(B))		See separate guidance for NZC2(A) and NZC2(B) in sections 4 and 5 below.
All	Where it is not possible to meet the applicable target noted above and/or where the feasible efforts towards NZC2(A) and (B) do not deliver a building without any regulated carbon emissions, proposals must: <ul style="list-style-type: none"> • Demonstrate that carbon reductions to the greatest extent feasible and viable have been pursued following the steps of the energy hierarchy in order (prioritising fabric improvements and low carbon heating – not gas – before renewable energy), AND • Make a contribution to carbon offsetting as per the stipulations of the guidance under Policy NZC2(C) (see Section 6) 		The 'offsetting' route to net zero is permitted in recognition that there may be some sites where it is not feasible to achieve a building with net zero regulated carbon through on-site measures. The Council's offsetting fund will deliver interventions elsewhere in the local area that are a necessary part of local/national carbon budgets and net zero, but currently unfunded or underfunded.

¹ HM Government Department for Levelling Up, Housing and Communities (2021), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1040925/Future_Buildings_Standard_response.pdf

Meeting the requirements in proposals for 1 or more new dwellings

3.5

The required minimum on-site reduction is a 63% reduction in regulated carbon emissions compared to a baseline of Part L of the Building Regulations 2021.

3.6

For the avoidance of doubt, this is the Part L 2021 notional building baseline specification, which has a gas boiler. See [Table 1.1 of Part L for dwellings²](#) for a summary, or [Table R1 Appendix R in SAP 10.2³](#) for the full baseline specification.

3.7

This required minimum 63% on-site carbon reduction on Part L 2021 is approximately equivalent to a 75% reduction on Part L 2013. This target reflects the [Future Homes Standard⁴](#) (FHS).

3.8

Therefore, it is anticipated that most new residential developments will be able to meet the on-site minimum requirement of Policy NZC1 by meeting the notional building specification of the Future Homes Standard.

3.9

Compared to the Part L 2021 notional dwelling, the Future Homes Standard notional dwelling has the following improvements:

- Improving thermal insulation and resistance (U values) of floors, roofs, walls, doors and glazing (See Guidance for Policy NZC2(A) Section 4, Table 3)
- Including a heat pump as the primary heat source instead of a gas boiler (See Guidance for Policy NZC2B Section 5, Tables 7-8)

3.10

Policy NZC1 does not require new homes to be built precisely to the indicative Future Homes Standard (FHS) specification. For example, where it is unfeasible or unviable to match the FHS specification for certain building elements, applicants may compensate for this by making improvements to other elements to achieve the required Dwelling Emission Rate.



² HM Government (2023), Conservation of fuel and power: Approved Document L, Volume 1: Dwellings. 2021 edition incorporating 2023 amendments.

³ Building Research Establishment, SAP10 – Standard Assessment Procedure. See 'specification' link on this page, and find the table. This document is periodically updated as frequently as every few months, therefore readers should refer to the latest available version for the fully up to date version of the notional building specification. However, for convenience, the latest available version at the time of writing this SPD was SAP 10.2 of 11th April 2023, and we here provide a link to the relevant page for the specification table (Appendix R, Table R1) in that version: <https://files.bregroup.com/SAP/SAP%2010.2%20-%2011-04-2023.pdf#page=118>

⁴ HM Government Ministry of Housing, Communities and Local Government (2019/2021), The Future Homes Standard: changes to Part L and Part F of the Building Regulations for new dwellings. Summary of responses [to consultation], and Government response.

3.11

We note that it has already been proven feasible to design homes that perform at this standard in Warwick District – see [Gallows Hill case study](#). Commenced in 2020, this social housing project achieves a $\geq 77\%$ improvement on Part L 2013 (which means it would meet or outperform the minimum on-site standard required by Policy NZC1). This was achieved through fabric improvements, air-source heat pumps, and solar panels.

3.12

Proposals are unlikely to be able to meet the required on-site improvement without a heat pump or similarly efficient and low carbon heat source.

- **Proposals with gas boilers will not be considered acceptable.** Nor will ‘hydrogen-ready’ gas boilers because there is not yet a credible, guaranteed time-bound source for the conversion of the gas grid to hydrogen, and at present the production of hydrogen either uses fossil fuel or uses several units of electricity to produce the equivalent unit of hydrogen energy.
- **Proposals with direct electric heating** are unlikely to be able to achieve the required minimum on-site improvements unless significant further improvements are made to the fabric U-values and airtightness, and/or an extensive solar PV array.

Case study: Europa Way/North of Gallows Hill, Warwick

This is a development of 54 council homes. Construction by Countryside Partnership (formerly Vistry Partnership) commenced on site in late 2020. The homes range from 1- to 3-bed, all for rent or shared ownership.

Key facts

- The homes were designed to achieve a 100% reduction in carbon emissions compared to the target set by Part L 2013.
- This is better than the DPD Policy NZC1 required minimum on-site improvement (a 63% reduction on Part L 2021, equivalent to ~75% reduction on Part L 2013).

- The features used to achieve this include:
 - Air-source heat pumps (not gas boilers)
 - Better insulation (U-values), airtightness, and thermal bridging (psi values)
 - Solar panels of an average 3kWp/home
 - Heat-recovering ventilation (MVHR)
- Embodied carbon was also reduced by changing from masonry to timber frame.
- For specification details, see [developer’s sustainability web page](#) and sustainability consultant’s [case study](#).



Meeting the requirements in non-domestic developments

3.13

The required minimum on-site reduction is a 35% reduction in regulated carbon emissions compared to the baseline compliant development under *Part L 2013*, including the notional systems as determined by the final proposed building specification⁵.

3.14

It should be noted that Part L 2021 is now a minimum requirement and itself delivers a ~27% carbon improvement on Part L 2013. The minimum policy requirement of a 35% carbon reduction is therefore a small improvement on Part L 2021.

3.15

However, as all development during the DPD's lifespan will have to do calculations against more recent Part L baselines (2021 or later) for building control purposes, the

Council will also accept proposals that demonstrate an on-site $\geq 35\%$ reduction against a *Part L 2021* baseline⁶. This will be afforded weight in favour, as the Council recognises that the 2021 baseline is already lower-carbon than the 2013 baseline.

3.16

The 35% reduction is expected to be achieved through a passively-led specification that improves on that of the Part L notional building.

3.17

According to the energy hierarchy, applicants should firstly pursue the requirement for energy efficiency specification to achieve a 19% (or greater) improvement on the 2013 building regulations by energy efficiency measures alone (as established separately in Policy NZC2(A)).

3.18

Selection of more efficient products is one way to achieve part of the required Part L regulated carbon reductions. For example, for a heat pump, the notional Coefficient of Performance (COP) performance values in Part L 2021⁷ are 2.86 seasonal generator efficiency for hot water and 2.64 seasonal system coefficient of performance for space heating (or in Part L 2013⁸, these were 2.565 for hot water and 2.43 for space heating). Modern heat pump systems can significantly improve on these performance values through good design, system selection and commissioning. For example, industry articles^{9,10,11} in 2023 reference 'average' efficiencies of 300% for air-source heat pumps (this would be a COP of 3), 350% for ground-source (a COP of 3.5) and 450% for water-source (a COP of 4.5). These articles also cite efficiencies of up to 500% or even 600% for the most advanced products on the market.

⁵ HM This mirrors approaches taken in other Planning Authority areas – for example, see point 7.9 of the GLA energy assessment [guidance](#).

⁶ The Council notes that while ambitious, this 35% reduction on the 2021 baseline is not thought to be unfeasible given that it is now required through the latest London Plan energy guidance, as a progressive improvement from the previous London Plan requirement for a 35% improvement on the 2013 baseline.

⁷ National Calculation Method Modelling Guide (for buildings other than dwellings in England): 2021 edition. For efficiencies of different heating technologies in the notional building, see Tables 7 and 8. www.uk-ncm.org.uk/filelibrary/NCM_Modelling_Guide_2021_Edition_England_26Sep2022.pdf

⁸ National Calculation Method Modelling Guide (for buildings other than dwellings in England): 2013 edition. For efficiencies of different heating technologies in the notional building, see Tables 7 and 8. www.uk-ncm.org.uk/filelibrary/NCM_Modelling_Guide_2013_Edition_20November2017.pdf

⁹ The Eco Experts (2023), The Complete Guide to Heat Pump Efficiency. www.theecoexperts.co.uk/heat-pumps/air-source-heat-pump-efficiency

¹⁰ Federation of Master Builders (2023), Best air source heat pumps in the UK 2023. www.fmb.org.uk/homepicks/heat-pumps/best-air-source-heat-pumps

¹¹ Green Match (2024), Heat Pumps in 2023: What, How & Why? + Pros And Cons. www.greenmatch.co.uk/heat-pump

3.19

In general, it should be feasible to achieve most if not all of the required 35% improvement on 2013 TER primarily through a combination of fabric measures (e.g., insulation), other building services efficiencies (e.g., lighting and fittings), and use of modern heat systems with greater efficiencies (such as heat pumps).

3.20

As per the energy hierarchy, after initial priority is given to fabric and system measures to reduce energy demand, further progress in achieving or going beyond the 35% reduction can be made through maximising the installation of onsite renewable systems such as photovoltaic panels.

3.21

Table 2 summarises various carbon and energy saving measures and their potential contribution to the policy requirements of the NZC DPD.

Table 2: Carbon- and energy-saving measures categorised by their contribution to different parts of the NZC1 policy requirements by development type

Contribution to policy requirements for dwellings	Measure	Contribution to policy requirements for non-domestic development
Recommended to support general approach to energy efficiency.	Orientation	Recommended to support general approach to energy efficiency.
Does not result in NZC DPD % improvements on Part L. See chapter 4.	Building form factor	Does not demonstrate NZC DPD % improvements on Part L.
Contributes to required 10% improvement on Part L Target Fabric Energy Efficiency(TFEE) under Policy NZC2(A)	Fabric: U-values (insulation effect)	Contributes to required 19% improvement on Part L TER 2013 from energy efficiency measures under Policy NZC2(A)
	Fabric: Glazing ratio, and G-value	
	Fabric: Airtightness	
Contributes to the required overarching on-site TER 2021 improvement on Part L 2021 63% absolute minimum; 100% expected under Policy NZC1	Efficient building services (fans, pumps, ventilation, lighting, controls)	Contributes towards required 19% TER improvement from energy efficiency, or if the 19% is already otherwise achieved then these measures contribute towards the required overarching TER 2013 improvement (35% minimum; 100% expected)
	Wastewater heat recovery/exhaust air heat recovery/efficient heat storage	
	Direct electric heating	
	Networked heat efficiencies (district heating)	
	Heat pumps (air, ground, water)	
	Biomass	
	Solar electricity or solar thermal	
	Wind	
	Hydro	

Energy Statements – How and when to evidence the proposal’s compliance with the requirements

3.22

Applicants must submit within their Energy Statement (see also Pro Forma in Annex):

- The Target Emission Rate (TER) that represents the baseline (i.e., the emission rate of the notional building for Part L 2021 for dwellings, or either Part L 2013 or 2021 non-domestic development).
- The Dwelling Emission Rate (DER) or Building Emission Rate (BER) (as applicable to the proposal type) with all proposed improvements applied.
- The % reduction on the TER that is achieved by this DER or BER (as applicable to the proposal type).
- The proposed building specification for all elements (U-values, airtightness, glazing ratio, heat recovery if applicable, lighting, ventilation, heating fuel, heating system, hot water system, cooling system if applicable, renewable energy, any other energy-using system efficiencies) laid out alongside that of Part L 2021 (or 2013 as applicable to your baseline), to demonstrate how your proposed improvement in carbon emissions has been achieved.

- Commentary on energy efficiency measures including passive measures such as solar gain and resulting energy efficiency improvements to fulfil the requirements of Policy NZC2(A) (see guidance in Section 4 of this SPD, pp. 20–31) including:

- For non-residential applications, this should include confirmation of which of the proposed building element improvements are counted towards ‘improvement from energy efficiency measures’ as per the definition in guidance for Policy NZC2(A) and what % of TER reduction these deliver.

- For residential dwellings, the % improvement on Target Fabric Energy Efficiency.
- Commentary on proposed zero or low carbon energy sources their suitability and effectiveness for the development proposed and carbon emission reductions they impart to the design to comply with Policy NZC2(B) (Section 5, pp. 32–49) and achieve on site net zero regulated carbon.

- A calculation of the proposed development’s total annual residual emissions, showing your workings as the DER or BER multiplied by the amount of floor space created in each building typology.

A calculation of the required offsetting amount (tonnes of CO₂, and £amount) as per the contribution calculation detailed in guidance for Policy NZC2(C) in Section 6, pp. 50–53.

3.23

The same carbon factors must be used for both the baseline and the proposed emissions rate (DER or BER) to ensure that the two indicators are comparable.

3.24

The carbon factors used should be those of the latest available version of Standard Assessment Procedure (SAP) or Simplified Building Energy Model (SBEM) (as applicable to building type) to ensure that these factors are as close as possible to the contemporary grid carbon factor (recognising that the electricity grid has been, and is expected to continue decarbonising).

3.25

All proposed building elements in the planning application energy statement (U-values, system efficiencies etc) should reflect the same specification that is separately submitted to and confirmed by Building Control.

3.26

For larger proposals (10+ homes) that consist of a small number of repeated home types, the calculation does not need to be repeated individually for every home but can instead present a sample of 20% of all homes including at least one of each home type¹², present within the development. The total development carbon emissions can then be calculated by multiplying these sample results up to reflect the full development area, with a weighted figure that represents the GIA created in each typology and orientation.

3.27

The calculations should be made and submitted at the following times:

- **For Outline Planning applications:** Applicants should identify the expected building specification in their Energy Statement and Pro-Forma.
- **For Full Planning applications and Reserved Matters:** Applicants' calculations in their Energy Statement and Pro-Forma must reflect the specified building design.
- **For Section 73 applications:** Applicant's calculations in their Energy Statement and Pro-Forma must reflect any changes to the specified building design.
- **For discharge of conditions:** Applicants must re-calculate and submit these figures on completion of the building, before occupation, using the actual as-built specification. Again, this must reflect any as-built information given to Building Control.

3.28

The as-built recalculation should capture and confirm any changes in building element specification or build quality that often arise in the construction process. It should be informed by:

- **The measured air-permeability,** tested in accordance with the procedures set out in CIBSE TM23 guidance, and reported as statutory compliance in Section 7 Part L. The air-tightness building control reports are to be included.
- **The as-built Building Regulations England Part L (BREL) report** produced for building control, containing photographs as specified in Appendix B of Approved Document Part L 2021.
- **An infrared thermographic survey,** if the building is completed within the central heating season (October to March).
- **Any findings generated by the building control surveyor** during site inspections.

¹² For example, top-floor apartment, mid- or ground-floor apartment, maisonette, mid-terrace, semi-detached, detached, bungalow. The reason for this is that the building form dramatically affects the space heating demand. Similar differentiation of non-domestic typologies should be undertaken, which may additionally need to be differentiated by uses (e.g., school, office, retail, hotel), as these can have dramatically different total energy use and carbon emissions.

Measures towards enhancement of building quality and energy performance

3.29

In addition to the statutory checks required within Approved Document Part L 2021, it is recommended that applicants follow an accredited quality assurance process to ensure “as built” performance is as close to design predictions as possible. Passivhaus certification is one process which can assure build quality, alongside the Assured Performance Process from the Good Homes Alliance.

3.30

Evaluating building performance following occupancy is highly recommended to assess the effectiveness of design choices, and potentially address any commissioning or building design short comings. Applicants should consider using “BS40101 Building performance evaluation of occupied and operational buildings 2022” to guide the process of evaluating the performance of buildings in operation.

3.31

Developers will also be required, by way of a condition, to produce a home user guide for occupiers.

3.32

Where evidence can be provided within the application and/or discharge of conditions to show that any of the aforementioned quality assurance processes have been followed, this will be looked upon favourably as a measure towards enhanced credibility of the building’s proposed performance.



Alternative route to compliance: Passivhaus certification

3.33

Policy NZC1 also establishes that a certified Passivhaus building will also be considered to have complied with Policy NZC1 provided that it does not use on-site fossil fuels of any sort-

- To take this route to compliance with Policy NZC1, the applicant must submit Passive House Planning Package (PHPP) calculations to demonstrate compliance with NZC1.

- Applications would also then be required to submit the finished Passivhaus certification to the Council for discharge of conditions prior to occupation.
- Where a proposal includes one or more buildings that are Passivhaus certified, but also other new buildings that are not certified, the buildings that are not certified will still be subject to the standard route to compliance with Policy NZC1 and the subsequent energy hierarchy policies (NZC2A, B,C).

3.34

Passivhaus certification requires the achievement of certain stringent energy efficiency targets, including¹³:

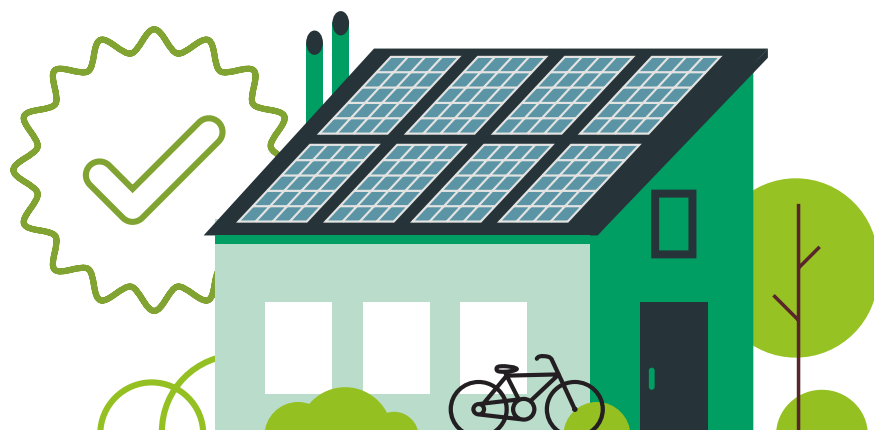
- 15kWh/m²/year limit on space heating demand.
- 15kWh/m²/year limit on space cooling demand.
- 0.6 limit on air changes per hour (to help deliver the space heating and cooling limits noted above).
- 60kWh/m²/year limit on total energy use intensity (termed 'primary energy renewable').
- 135kWh/m²/year limit on total primary energy demand.

3.35

The above cited targets are for Passivhaus 'Classic'. Optional enhanced Passivhaus certifications are also available (Plus and Premium) which require even tighter targets on total energy use intensity, and additional targets for renewable energy generation in kWh per square metre of building *footprint*.

3.36

The Passivhaus certification system requires that the above targets must use the calculation method 'Passivhaus Planning Package' (PHPP) which is a highly accurate method to predict a building's energy use. The certification process also involves verifying certain performance parameters after completion of the building. As a result, Passivhaus buildings avoid the 'performance gap' and it is deemed that this certification represents such a significant improvement in actual on-site energy performance (compared to a building using the conventional building regulations energy calculations – see Figure 2).



¹³ Passivhaus Trust (no date), What is Passivhaus?: Performance targets for a European climate. https://passivhaustrust.org.uk/what_is_passivhaus.php#How%20to

Figure 2:

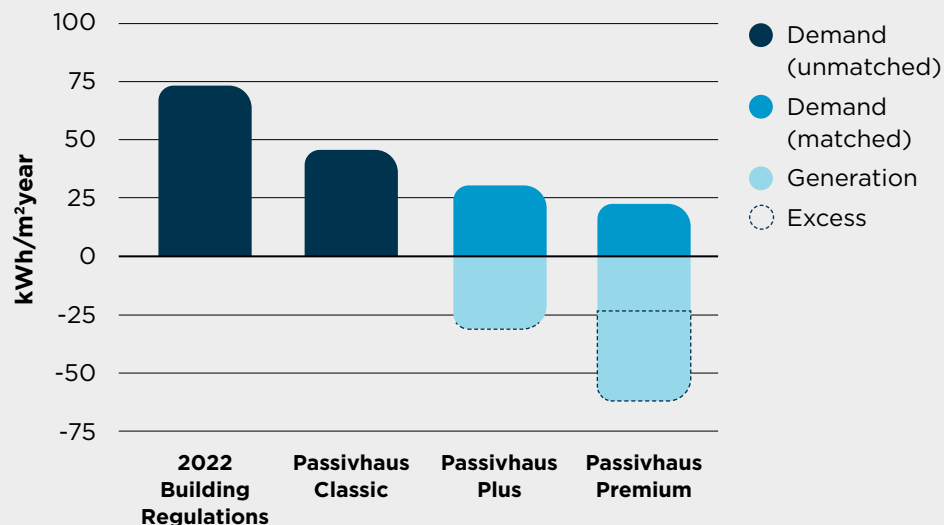


Diagram of total energy demand (regulated + unregulated), and whether matched by renewable energy on-site, in Passivhaus compared to building regulations.

Adapted from: www.passivhaustrust.org.uk/competitions_and_campaigns/passivhaus-and-zero-carbon

3.37

Although Passivhaus Classic certification does not require the inclusion of any renewable energy on site and therefore would not be ‘net zero carbon’, the increased quality and effort involved in achieving this certification is regarded as sufficient to address the requirements of policy NZC1 and no further renewable energy or offsetting will be required for such development.

3.38

Proposals that further achieve Passivhaus Plus or Premium will be afforded significant weight in their favour as this represents not only the achievement of actual in-use energy performance to exemplary levels, but also the delivery of renewable energy to meet or exceed the home’s energy demand (thus achieving true net zero operational carbon, or even becoming carbon negative in operation; see Figure 2).

3.39

Please note that even in a Passivhaus certified scheme, direct electric heating should still be avoided especially in dwellings, due to the probability of excessive energy bills and risk of fuel poverty. Although Passivhaus certification does not directly prohibit the use of direct electric heat, the Passivhaus Trust emphasises¹⁴ that the use of direct electric heat will make it difficult to achieve the Passivhaus required limit on primary energy demand.

¹⁴ Passivhaus trust, How to build a Passivhaus: Chapters 5 to 9. [www.passivhaustrust.org.uk/UserFiles/File/Technical%20Papers/ROT/How%20to%20build%20a%20Passivhaus_Chapters%205%20to%209\(3\).pdf](http://www.passivhaustrust.org.uk/UserFiles/File/Technical%20Papers/ROT/How%20to%20build%20a%20Passivhaus_Chapters%205%20to%209(3).pdf)

4.

Policy NZC2(A) - Making Buildings Energy Efficient



Policy NZC2(A): Making buildings energy efficient

New development of one or more new dwellings (C3 or C4 use) are expected to demonstrate a 10% improvement on the Part L 2021 Target for Fabric Energy Efficiency.

New developments of 1,000sqm or more of new non-residential floorspace, hotels, (C1 use class) or residential institutions (C2 use class) are expected to demonstrate that they achieve a 19% reduction in carbon emissions compared to Part L 2013 through energy efficiency measures (fabric efficiency, efficient services and efficient energy supply; steps 1 and 2 of the energy hierarchy).

Where full compliance is not feasible or viable having regard to the type of development involved and its design, proposals must demonstrate through the energy statement that carbon reductions to the greatest extent feasible through energy efficiency measures have been considered and incorporated.

All energy statements must also lay out the U-values and airtightness of the proposed building in comparison to the notional values in the Future Homes Standard or Future Building Standard (indicative specification, or final, as available at time of application).

4.1

Policy NZC2(A) represents the first step in the energy hierarchy: **energy efficiency**. This refers to the design of buildings to minimise the demand for energy, regardless of the source of that energy.

4.2

This is a vital step towards the DPD's expressed objective to ensure new buildings are planned and constructed to be net zero regulated carbon in operation. High fabric efficiency in new buildings ensures that new buildings do not add to the significant number of existing buildings in the District that will need costly and disruptive retrofit in order to play their necessary role in meeting the locally committed or nationally legislated net zero carbon transition. It has been shown that to retrofit a home to a net zero carbon performance standard costs three to five times more than it does to build to that standard in a new build¹⁵.



¹⁵ Currie & Brown on behalf of Committee on Climate Change (2019), The costs and benefits of tighter standards for new buildings. www.theccc.org.uk/wp-content/uploads/2019/07/The-costs-and-benefits-of-tighter-standards-for-new-buildings-Currie-Brown-and-AECOM.pdf

4.3

The energy efficiency targets set by Policy NZC2(A) for new buildings is summarised in Table 3.

4.4

The key ways in which energy demand can be minimised are:

- Orientation and solar gain:** Designing the building’s layout and glazing so that the building gains the optimal benefit of light and heat from the sun, to minimise the need for artificial heat and lighting *while avoiding the risk of overheating from sunlight*. See Figure 3 for an illustration.
- Building form:** Having a more compact, simple building shape rather than an extensive, complicated building shape reduces the ratio of external surface compared to the area of internal space, and reduces the number of joins between different parts of the wall or roof. Together, this reduces the points where heat is likely to be lost to the outside. See also Figure 4 illustration of what different residential form factors could look like.

- Fabric:** Improving the insulation value of walls, windows, floors and roofs, improving the air-tightness of the whole building, and reducing ‘thermal bridges’ (points where a more heat-conductive element of the building forms a bridge from inside to outside allowing heat to be lost).
- Efficient energy supply:** Using types and sources of energy that minimise losses in the generation and distribution process, and/or which use waste heat (see Section 5).
- Efficient services and appliances:** Ensuring that the heating system, ventilation, lighting, appliances and other energy-using devices installed within the home are able to deliver the maximum function for the minimum amount of energy input.

Table 3: Summary of Policy NZC2(A) requirements by building type, and rationale.

Use type	Baseline measure	Baseline edition of Building Regs	Required improvement on baseline
New development of one or more dwellings (C3 or C4 use class)	Part L Target Fabric Energy Efficiency (TFEE)	Part L 2021	-10%
New development of 1,000sqm or more of new non-residential floorspace, hotels (C1 use class) or residential institutions (C2 use class).	Part L Target Emission Rate	Part L 2013	-19%
Where it is not feasible to meet the applicable target noted above, proposals must demonstrate that carbon reductions to the greatest extent feasible have been pursued. This should be identified in the Energy Statement.			



Figure 3:

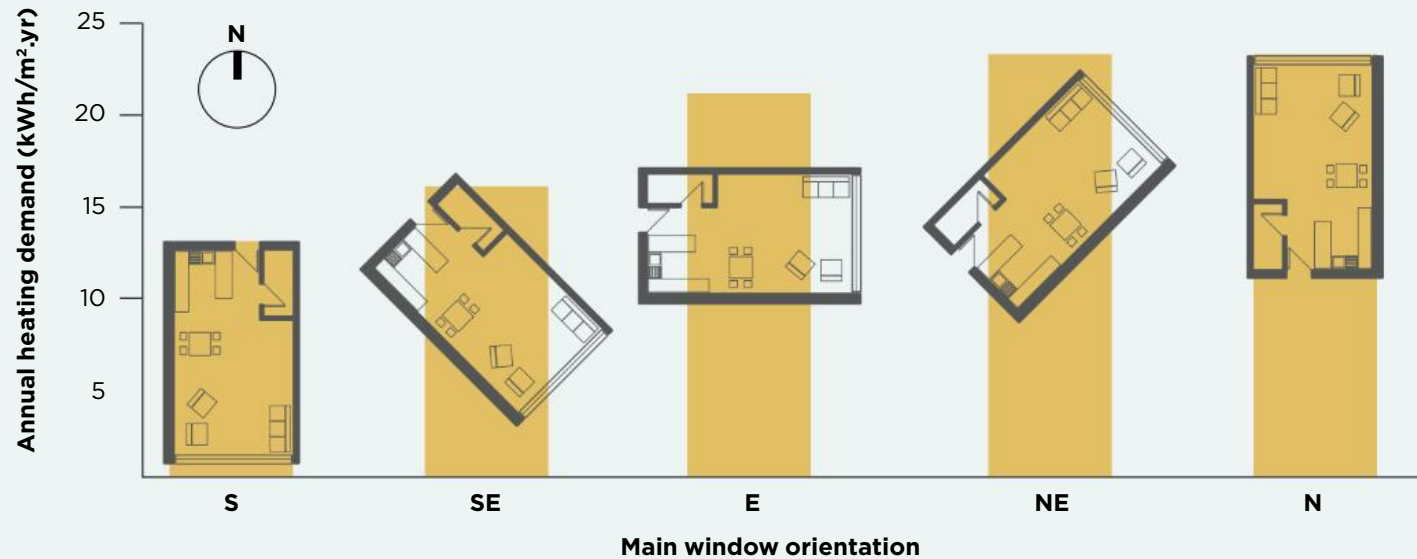


Chart showing how a well-insulated building's space heat demand increases as the main window turns further away from the south. Please note: The yellow bar denotes heat demand, not sun coverage, as the north-facing window has no direct sun. Credit: LETI.

Please also note that the higher solar gain from south-facing windows is also a risk factor for overheating in highly insulated and airtight buildings; therefore it is important to ensure that designs are balanced so as to maximise the benefit reduced heating demand while also avoiding triggering the need for active cooling, whose energy consumption could negate the energy savings of the reduced heat demand. Overhead shading of south- and west-facing glazing, using deep insets or brise-soleil, can help avoid this problem by blocking summer sun (which comes at a high angle) while still allowing the building to receive winter sun (which comes at a low angle). The [GHA](#) has guidance on this matter.

4.5

All of the above measures are encouraged and applicants should provide narrative on these within the Energy Statement and a general indication of the energy efficiency benefits they impart to the design.

4.6

To comply with Policy NZC(A) and demonstrate an improvement on the Part L baseline, **improved fabric, efficient energy supply, and efficient hot water, fixed lighting, heating and cooling services will be required** (please see the full [Part L document](#) and [SAP](#) for full list of regulated services within Part L).

4.7

Please note: the addition of renewable energy technologies (like solar panels, etc) does **not** count towards ‘energy efficiency’ requirement in most cases. Instead, these would contribute towards the separate requirements of Policy NZC2(B) Zero or Low Carbon Energy Sources and Zero Carbon Ready Technology. However, in **non-domestic development** only, there is some overlap between an ‘energy efficiency’ measure and a ‘low carbon energy supply’ measure. This overlap and how to handle it is detailed under ‘meeting the requirements in proposals of 1,000 sqm or more of non-domestic development’, below on page 27.

Figure 4:











Type	Form Factor	Efficiency
	End mid-floor apartment 0.8	Most efficient 
	Mid-terrace 1.7	
	Semi-detached house 2.1	
	Detached house 2.5	
	Bungalow 3.0	Least efficient 

Diagram illustrating what different form factor numbers look like in practice, and their relative impact on space heat demand. Credit: NHBC, 2016.

Meeting the requirements in proposals for 1 or more new dwellings

4.8

Policy NZC2(A)'s new dwelling requirement for a **10%** improvement on the Part L 2021 TFE (Target Fabric Energy Efficiency) is based on the expected fabric specification for the Future Homes Standard (Part L 2025)¹⁷. Thus it is anticipated that most new dwellings follow the FHS notional building fabric specification. This FHS notional building specification is replicated below as it was laid out in the Government's FHS Consultation Response.

4.9

The 'U-value' of each element represents how heat-transmissive that element is. A lower U-value means less energy loss and greater energy efficiency.

4.10

A lower 'air permeability' number means less energy loss via air moving in and out of the building. Thus, a lower 'air permeability' score represents greater energy efficiency.

¹⁶ HM Government Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities & Local Government (2023) Building Regulations Part L ("Conservation of Fuel and Power Approved Document L) 2021 edition incorporating 2023 amendments. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1133079/Approved_Document_L_Conservation_of_fuel_and_power_Volume_1_Dwellings_2021_edition_incorporating_2023_amendments.pdf

¹⁷ HM Government Ministry of Housing, Communities and Local Government (2021), Future Homes Standard consultation response. ("Summary of consultation responses and Government response"). https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/956094/Government_response_to_Future_Homes_Standard_consultation.pdf

Table 4: Dwelling fabric specification baseline and recommended improvement.

Building fabric element	Part L 2021 notional dwelling ¹⁶ (BASELINE)	RECOMMENDED TO MEET POLICY NZC2(A) based on the Future Homes Standard Part L 2025 notional dwelling ¹⁷
External walls (including semi-exposed walls)	U value 0.18 W/(m ² .K)	U value 0.15 W/(m ² .K)
Floors	U value 0.13 W/(m ² .K)	U value 0.11 W/(m ² .K)
Roofs	U value 0.11 W/(m ² .K)	U value 0.11 W/(m ² .K) [no change]
Doors* (*whether opaque or up to 60% glazed)	U value 1.0 W/(m ² .K)	U value 1.0 W/(m ² .K) [no change]
Windows and glazed doors (>60% glazed)	U value 1.2 W/(m ² .K)	U value 0.8 W/(m ² .K)
Roof windows** (**If vertical. If not vertical, see conversions in SAP Appendix R)	U value 1.2 W/(m ² .K)	[Not separately specified in the FHS consultation response; presume same as other windows as above, i.e. 0.8 W/(m ² .K) if vertical]
Rooflights*** (**If horizontal. If not horizontal, see conversions in SAP Appendix R)	U value 1.7 W/(m ² .K)	[Not separately specified in the FHS consultation response]
Air permeability (airtightness)	5 m ³ /(h·m ²) at 50	5 m ³ /(h·m ²) at 50 Pa [no change]

Please note: For all elements shown here, a *lower* number means a *lower* amount of energy lost via this element. Therefore, *lower* numbers equal *greater energy* efficiency.

4.11

Applicants are required to lay out their proposed building fabric specification alongside that of Part L 2021 and FHS 2025, in their Energy Statement and Energy Pro Forma.

4.12

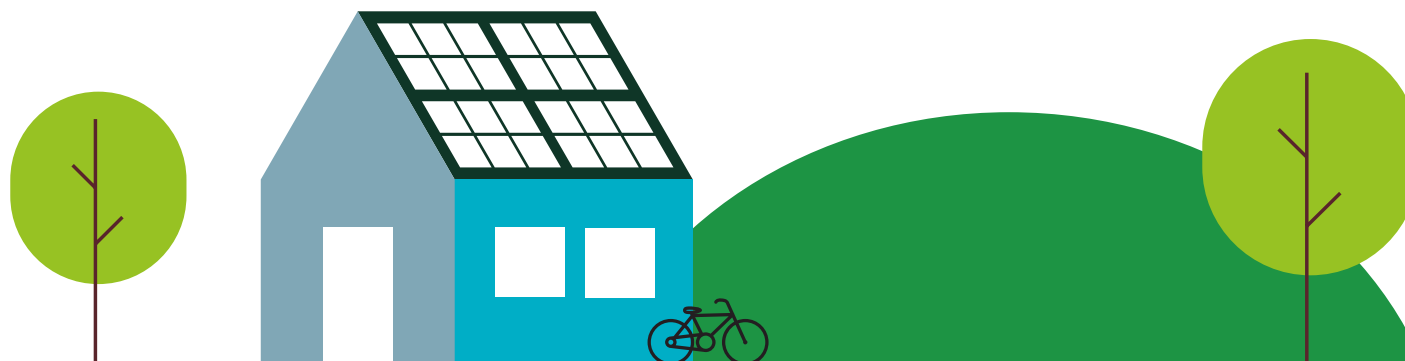
Applicants are not required to build precisely to the specification described above; considering that a lower performance in one building element (e.g., windows) may be able to be balanced out by better-than-notional performance in another (e.g. airtightness).

4.13

If the applicant has applied all of the above measures and these do not deliver the required 10% improvement on the TFEE, the applicant is recommended to pursue air tightness improvements as there is no pre-existing improvement in air tightness between the 2021 and 2025 fabric spec and airtightness can contribute a great deal to energy saving. Please note that a greater airtightness may, beyond a certain level, trigger a need for mechanical ventilation and heat recovery (MVHR).

4.14

Please note: TFEE includes any demand for active cooling as well as heating. Therefore it is important to ensure that dwelling designs are carefully balanced so as to avoid the need for active cooling as far as possible, by ensuring that the building is not subject to excessive heat gains (for example, designs should carefully optimise the amount of solar heat gain from sunlight entering via glazing, so that the optimal winter gains are achieved to reduce heating demand while avoiding excessive gains in summer). Where it is unavoidable to use some active cooling, it is recommended to provide this with heat recovery for hot water uses, and to provide any active cooling through a reversible heat pump system (as the home is likely to need a heat pump anyway, to meet the overarching carbon reduction required by Policy NZC1).



Meeting the requirements in proposals of 1000sqm or more of non-domestic development

4.15

The requirement for non-domestic buildings is a **19%** improvement on the Part L 2013 Target carbon Emission Rate (**TER**) delivered by **energy efficiency measures**.

4.16

The selected Part L 2013 baseline should reflect the same type of building as the proposal.

4.17

For the purposes of this policy, ‘energy efficiency measures’ in non-domestic proposals shall be defined as:

- Fabric efficiency measures, i.e., improvements to insulating value of external building element insulating properties (U-values) and air-tightness.
- Efficient regulated energy-using fittings and services, such as cooling, ventilation, lighting, fans and pumps.
- Waste heat recycling systems such as wastewater heat recycling or heat sharing loops that capture heat rejected to active cooling systems and reuse this in other forms.

- Selection of proposed heat system with a greater efficiency than that specified for that respective heating type in the Part L notional building specification.
- Other efficient energy supply and distribution systems that are not proposed to be counted under the separate required contribution from ‘renewable energy’ measures (see guidance for Policy NZC2(B)).

4.18

In the case of non-domestic development, some guidance may be needed regarding whether certain heat system measures should be classed as ‘energy efficiency’ measures or ‘renewable and low carbon energy’ measures. It is recognised that some heat delivery technologies can include elements of both efficiency and low carbon/renewable energy supply. To allow flexibility, this SPD will allow that any of the **following hybrid ‘efficiency/energy supply’ measures in non-domestic development may be classed as ‘efficiency measures’** contributing towards the initial 19% TER improvement:

- **Heat pumps:** These provide an excellent ‘efficiency’ to the user in terms of the amount of metered electricity they draw from the grid, as they deliver approximate three kWh of heat for every kWh of electricity they use (although this is achieved because the heat they deliver is partially ‘renewable’ in that it is borrowed from outdoor ambient heat in the air, water or ground, this shows up as an ‘efficiency’ saving to the user).
- **Heat networks** that, by economies of scale, have an improved ratio of fuel input to heat delivered in the home, compared to a gas boiler. However, in general, gas-fired Combined Heat and Power (CHP) should still be avoided as this is still a fossil fuel use even if sometimes more efficient than individual gas boilers – for more detail, see guidance relating to [Policy NZC2\(B\)](#). Heat network (or ‘district heat’) CO₂ factors per kWh are laid out in the National Calculation Methodology Guidance (see [2013](#) or [2021](#) version as applicable to your baseline); improvements on these notional factors can be counted as energy efficiency measures contributing to Policy NZC2(A).

4.19

Please note that this flexibility in classification of these heating measures as energy efficiency measures applies **only** to non-domestic development. If your scheme includes any dwellings, those dwellings should still meet the required 10% improvement in building Fabric Energy Efficiency regardless of whether your scheme also uses some of the ‘energy efficient supply’ measures above.

4.20

If your proposal is a mixed-use scheme that includes dwellings and non-domestic buildings which share any parts of their energy system – for example a heat network – the above measures would count towards the overarching requirements set by Policy NZC1 for minimum total regulated carbon emissions reduction in each respective use type.

4.21

In general, it should be feasible to achieve the required 19% improvement on 2013 TER primarily through a combination of fabric measures, other building services efficiencies, and use of modern heat systems with greater efficiencies. Much commercial development is likely to pursue a heat pump system, especially as reversible heat pumps can also meet the need for summer cooling. Modest improvements to fabric and services would further assist, especially in cases where it is not feasible or viable to use a heat pump system.

4.22

In fulfilling the energy efficiency improvements requirement of Policy NZC2(A) in non-domestic developments, applicants are required in their Energy Proforma to lay out their proposed building specification for all elements that are proposed as ‘energy efficiency measures’, alongside the respective equivalent elements of the notional building of Part L 2013, 2021, and 2025 (where available); see Annex.

4.23

Justification should also be provided in the Energy Statement on the reasons for the selected measures in respect to their suitability and effectiveness for the type of development proposed and (where relevant) the site characteristics.

Where full compliance is not feasible or viable having regard to the type of development involved, proposals must demonstrate through the energy statement that carbon reductions to the greatest extent feasible through energy efficiency measures have been considered and incorporated.

4.24

Overleaf (Table 5) provides general guidance on the range of energy efficiency measures that are likely to be suitable and effective in key prevalent types of non-domestic development.

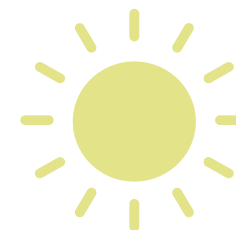


Table 5: Recommended energy efficiency measures in non-domestic development









Measure	Contributes to Part L TER improvement?	Description and rationale
Orientation	 No, (but see ‘glazing ratio’ below) – but commentary on this topic is strongly encouraged and will be considered in assessing your energy statement	<p>Non-domestic buildings tend to have a higher occupancy of people and electrical equipment. This can bring a higher risk of overheating which can be worsened by excessive solar gain in summer. This is especially the case where the glazing is south-facing, east- or west-facing.</p> <p>To avoid this problem, you could:</p> <ul style="list-style-type: none"> • Orient your windows differently (north-facing windows provide more consistent light as well as avoiding solar gain, but are subject to more heat loss) • Shade the window: <ul style="list-style-type: none"> - South-facing windows shaded from above (e.g. with deep window reveal or brise-soleil) so that low-angle winter sun can enter but high-angle summer sun is blocked - East- and west-facing windows may need lower-angle shading as they catch sun in the morning or evening when it is at a lower angle. <p>The design process should explore what is the optimal level of solar gain for your building’s anticipated occupancy so that there is a balance between minimising the need for mains heating in winter while avoiding overheating in summer so as to avoid or minimise the need for active cooling, which consumes energy. See also ‘glazing ratio and G-value’.</p>
Improve glazing ratio and G-value	 Yes Indirectly, by avoiding the need for active cooling systems (if reducing solar gain) or heating (if increasing solar gain)	<p>These measures can help address the risk of overheating due to solar gain (the importance of which in non-residential is described above).</p> <ul style="list-style-type: none"> • Changing the ratio of glazing from the notional glazing ratio set by SBEM: The SBEM notional ‘reference building’ has a set amount of glazed windows (‘opening areas’) as a percentage of walls and roofs. Increasing or decreasing glazing will respectively increase or decrease the amount of solar gain, thus either reducing the need for heating systems (if the glazing is also sufficiently insulated) or reducing the need for active cooling systems. The appropriate ratio will depend on the building’s occupancy, uses and orientation. • Reduce the G-value of the glazing (amount of sunlight energy that is transmitted through the glass): This can help to mitigate overheating and thus reduce the need for cooling.
Building form factor	 No, because of how Part L works – but commentary on this topic is encouraged and will be considered in assessing your energy statement	<p>Simpler building shapes lose less of their space heating to surface area and draughts. Recommended form factors for non-domestic are here noted, replicated from LETI Climate Emergency Design Guide:</p> <ul style="list-style-type: none"> • Commercial offices: Form factor of 1–2. • Schools: Form factor of 1–3.

Table 5: Recommended energy efficiency measures in non-domestic development continued

Measure	Contributes to Part L TER improvement?	Description and rationale
Fabric: U value improvements and air-tightness.	 Yes	<p>Reduces the amount of heating energy needed by:</p> <ul style="list-style-type: none"> improving the insulation values of walls, roofs, floors, doors and windows reducing the amount of heat that is lost to draughts. <p>An improvement on the notional building U-values laid out in the National Calculation Methodology (NCM) Modelling Guide¹⁸ would help to deliver the required improvement. As the current NCM Modelling Guide is for the 2021 Building Regulations, the values laid out in that NCM Guide are already an improvement on the Part L 2013 regulations against which the DPD policy requirement is set. Therefore, following the 2021 notional specification will already deliver some improvement on the 2013 TER, but an even greater improvement to these fabric and airtightness values is encouraged.</p> <p>Part L 2021's limiting value for air permeability is $\leq 8 \text{ m}^3/(\text{h}\cdot\text{m}^2)$. This is not very high airtightness. Instead, the Council's recommended air permeability for non-domestic development is $< 5 \text{ m}^3/(\text{h}\cdot\text{m}^2)$, and its preferred value is $< 3 \text{ m}^3/(\text{h}\cdot\text{m}^2)$. These reflect notional building airtightness values of Part L 2021 depending on the type of activity undertaken in the building.</p>
Lighting	 Yes	<p>Low-energy lighting is an investment that tends to pay itself back very swiftly through operational energy savings. LED lighting is far more durable than Compact Fluorescent Lamp (CFL) or incandescent bulbs, allowing savings in cost and embodied carbon during their lifetime through delaying the need to replace them. Low-energy LED lighting throughout all non-domestic buildings is recommended.</p>
Ventilation and cooling	 Yes	<p>Where the building's use allows, natural ventilation (with opening windows located to enable cross-ventilation) or mixed-mode ventilation with an element of natural ventilation is preferable. When combined with appropriate shading, this can avoid the need for active cooling.</p> <p>Where it is unavoidable to use some active cooling, it is recommended to provide this with heat recovery (most likely for hot water uses), and to provide any active cooling through a reversible heat pump system so that the building also benefits from the most efficient available heating option.</p>

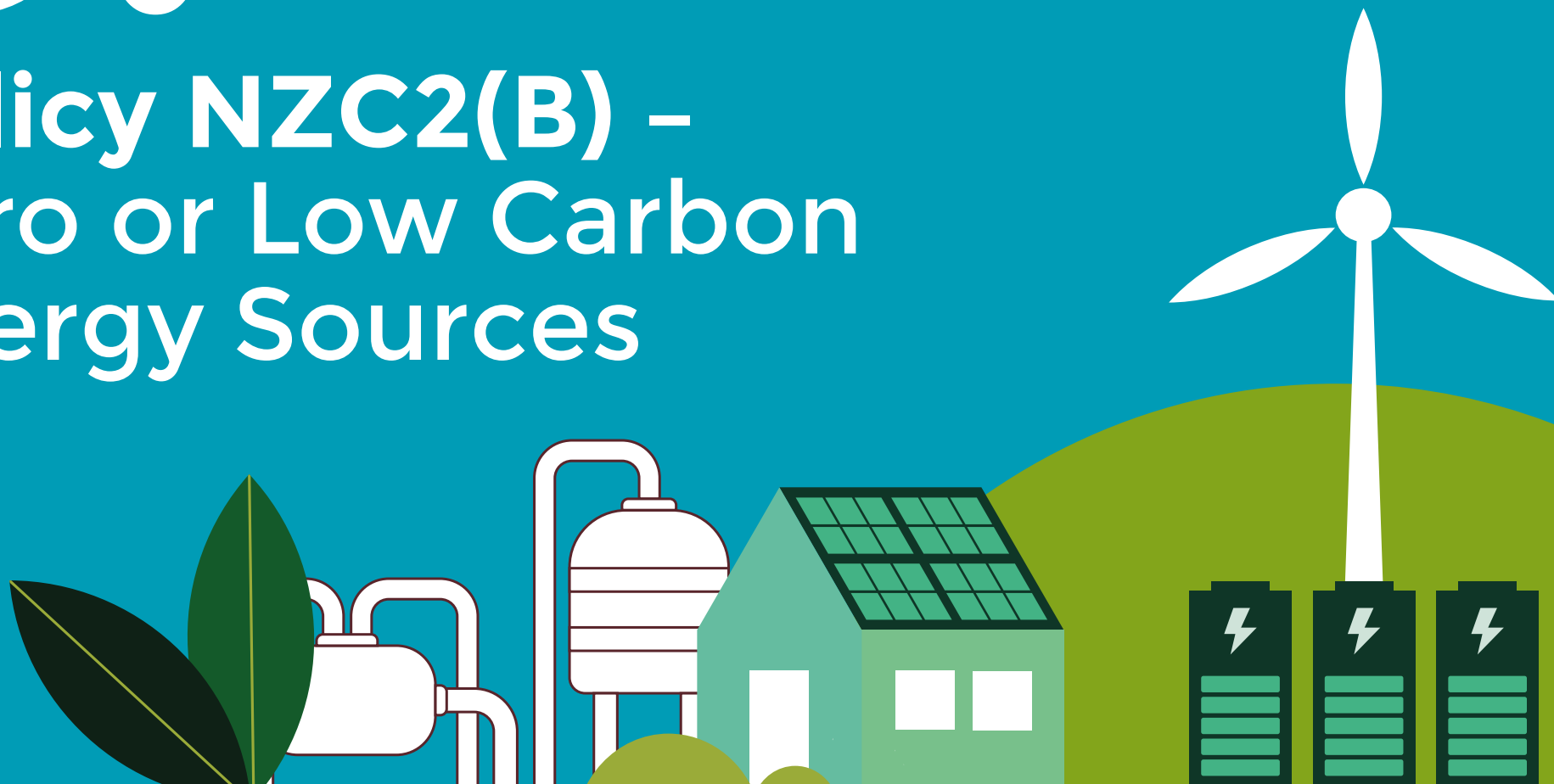
¹⁸ BRE (2022), England NCM Modelling Guide 2021 edition (Sep 2022). Available from UK National Calculation Methodologies website. www.uk-ncm.org.uk/download.jsp?id=35

Table 5: Recommended energy efficiency measures in non-domestic development continued

Measure	Contributes to Part L TER improvement?	Description and rationale
Heat recovery and heat recycling	 Yes	<p>Where there is active ventilation and/or active cooling, there is potential to recover heat from the outgoing air and to reuse this to heat either incoming fresh air or hot water, thus reducing the need for mains energy for these. The typical method is MVHR (mechanical ventilation with heat recovery).</p> <p>Wastewater heat recovery (WWHR) systems can also have great potential in non-domestic buildings that have a significant hot water load, such as from showers, laundries, frequent hand washing, etc. These are likely to include hotels, gyms, healthcare, schools, and offices/places of work if these have showers.</p> <p>Mixed-use schemes may bring opportunities to recycle heat rejected by active cooling (e.g., in offices/server rooms) as domestic hot water elsewhere in the development.</p>
Heating (for space heat and hot water)	 Yes	<p>The efficiency assumption for a gas boiler in Part L 2021 for non-domestic is circa 86% to 93%. Air-source heat pumps can achieve efficiencies of >300% and ground-source heat pumps can achieve 300- 400%. This is achieved by taking heat from natural ambient outdoor sources, using a smaller amount of electricity to transfer this into the home. The efficiency is termed the ‘SCoP’ (Seasonal Coefficient of Performance) or SPF (Seasonal Performance Factor). This refers to the average efficiency across the year, as heat pumps run more efficiently when the ‘source’ is warmer (typically summer).</p> <p>Heat pumps can be reversible, allowing the development to have cooling in summer as well as benefitting from the excellent heating efficiencies in winter.</p>

5.

Policy NZC2(B) – Zero or Low Carbon Energy Sources



5.1

All measures that relate to an improvement in the carbon intensity of the supply of energy are covered under Policy NZC2(B): Zero or Low Carbon Energy Sources and Zero Carbon Ready Technology.

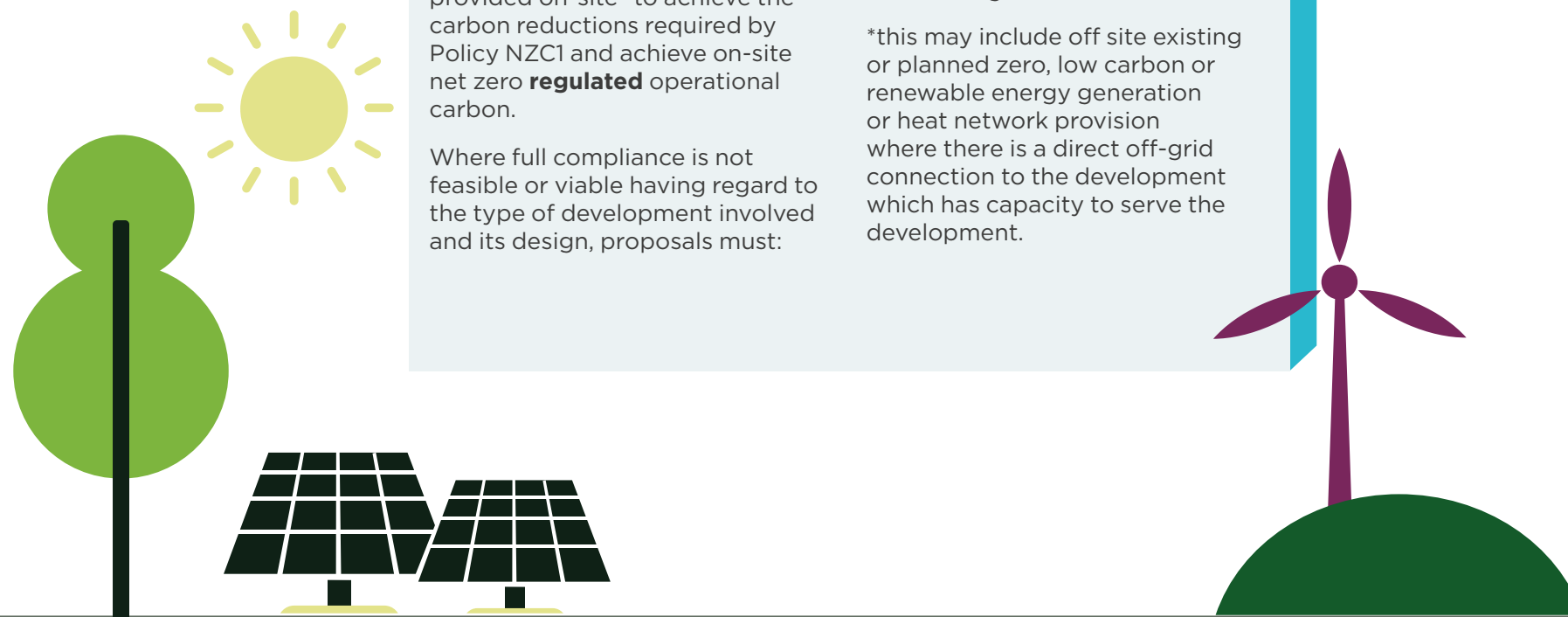
Policy NZC2(B): Zero or Low Carbon Energy Sources and Zero Carbon Ready Technology

New development of one or more new dwellings (C3 or C4 use class) and/or 1,000sqm or more of new non-residential floorspace, hotels (C1 use class), or residential institutions (C2 use class) should demonstrate through an energy statement that additional renewable, zero and low carbon energy technologies have been provided on-site* to achieve the carbon reductions required by Policy NZC1 and achieve on-site net zero **regulated** operational carbon.

Where full compliance is not feasible or viable having regard to the type of development involved and its design, proposals must:

- demonstrate through the energy statement that additional renewable, zero and low carbon energy technologies have been provided to the greatest extent feasible and viable.
- incorporate 'zero carbon ready' (as opposed to immediately providing 'low/zero carbon') technologies.

*this may include off site existing or planned zero, low carbon or renewable energy generation or heat network provision where there is a direct off-grid connection to the development which has capacity to serve the development.



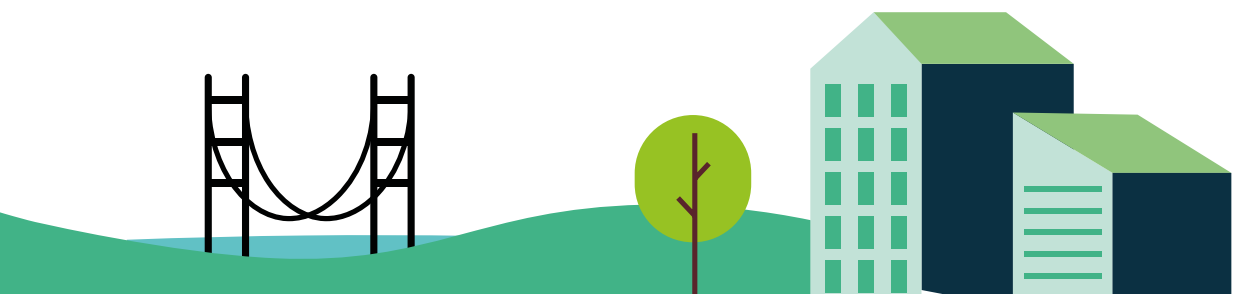
5.2

The policy requires the following provision of low-carbon and renewable energy sources to achieve the required improvements on the baseline:

Table 6: Summary of Policy NZC2(B) requirements for low-carbon energy supply by building type, and rationale.

Use type	Baseline measure	Baseline edition of Building Regs	Required improvement on baseline
New development of one or more dwellings (C3 or C4 use class)	Part L 2021 Target Emission Rate (TER)	Part L 2021	63% minimum 100% where feasible in combination with the fabric efficiency improvements already achieved under Policy NZC2(A).
New development of 1,000sqm or more of new non-residential floorspace, hotels (C1 use class) or residential institutions (C2 use class).	Part L 2013 Target Emission Rate	Part L 2013	35% minimum 100% where feasible in combination with the fabric efficiency improvements already achieved under Policy NZC2(A).

Where it is not feasible to meet the applicable target noted above, proposals must demonstrate that carbon reductions to the greatest extent feasible have been pursued. This should be identified in the Energy Statement.



5.3

Measures that can be considered to contribute towards the requirements of Policy NZC2(B) include any measure that is low-carbon in comparison to the Building Regulations baseline for that type of energy use, such as:

- **Direct electric heating**, as grid electricity has a lower carbon factor per kWh than fossil gas (but only recommended currently alongside an additional renewable energy source such as solar panels or a heat pump).
- **Heat networks** supplied by fossil fuel free sources, including waste heat.
- **Solar, hydro or wind energy** generated on site, as this is zero-carbon and thus lower-carbon than grid electricity.
- **Biomass or biogas**, within strict criteria whereby the fuel source is sustainably managed and/or is a waste product that would otherwise create CO₂ in its decay if otherwise disposed.

- **Heat pumps**, as these deliver approximately 2.5–4 units of renewable heat for every 1 unit they consume in grid electricity (depending on the Coefficient of Performance that is achieved which varies by type and quality of heat pump).
- **Energy storage** (electrical or thermal), as this can, when combined with clean energy generation, increase the proportion of the clean energy generated on-site that is consumed at the development. Without energy storage, developments with large amounts of renewable energy generation on site may have to import higher-carbon energy from the grid at times of low generation, and either discard or export lower-carbon energy to the grid at times of high generation and low usage, whereby some of that exported energy would be lost in distribution before that energy can be consumed by another user).

5.4

Please note that some of the low carbon energy supply measures noted above have an element of ‘energy efficiency’ and therefore can, in non-domestic applications be categorised as ‘energy efficiency’ measures, as previously noted in the guidance for Policy NZC2(A) and Table 3.

5.5

Tables 7–18 below provide a summary of the available types of renewable and low-carbon energy supply measures and their general suitability to different situations.

Note, the following tables provide broad considerations. The application of each technology will need to take into account location specific contexts including, but not restricted to, heritage conservation, visual impact and locational requirements.

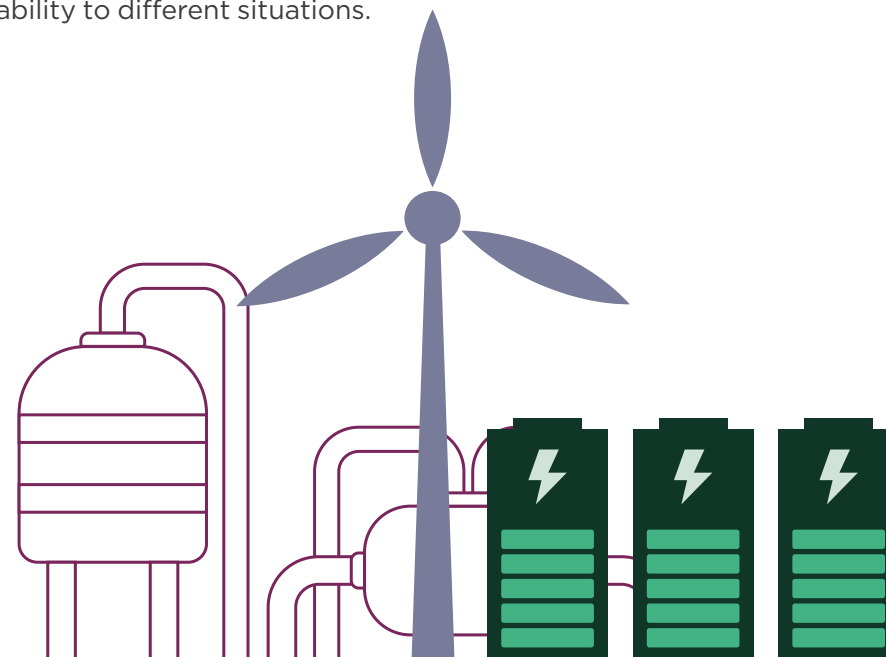


Table 7:

Air source heat pumps

What is it?

An air source heat pump (ASHP) is able to heat and cool a building through recycling heat. Similar to a fridge but in reverse, an ASHP takes heat from outside air and transfers it to an internal heating system. This can be used for heating and hot water. Some heat pumps can reverse the system to provide a cooling function. Heat pumps provide heat efficiently at lower temperatures, meaning they are paired effectively with low temperature heating systems such as underfloor heating systems, which usually have a flow temperature of 35°C compared to <70°C demanded by gas boiler fed radiators – if underfloor heating is not possible then large radiators should be installed. Since ASHPs provide heat at low temperatures, it is important the building is well insulated so that less heat is required and can be retained.

How efficient is it?

Heat pumps are significantly more efficient than direct electric or combustion-based systems because for one unit of electricity used, multiple units of heat are generated. ASHPs typically have a coefficient of performance (COP) above 3, meaning they are

> 300% efficient. The efficiency of the technology will decrease as the disparity between outdoor temperature and desired indoor temperature increases, however, the seasonal efficiencies of modern domestic units when properly installed, typically exceed 350%. Installing an ASHP will make compliance with Policy NZC2(B) easier to achieve than less efficient heating systems.

Location and space requirements

The most important element for the location of an ASHP is to ensure steady air flow. To enable this any plants, walls or objects should be placed at least 1 metre away and refer to relevant product installation guidance. The unit should be located immediately outside your home and ideally at the back of the building where easy access is available for maintenance. Placing the unit in a location that requires minimal insulated pipework is important to mitigate heat loss. Where there is insufficient outdoor ground space, ASHPs can be mounted on flat roofs, which can also reduce noise pollution to neighbouring buildings.

Things to be aware of (e.g. noise and visual impact)

Without appropriate acoustic measures, some ASHPs can create noise pollution, for which mitigation could be required for planning compliance. Noise should be a consideration in the design process and can be addressed by selecting a quieter model, siting the ASHP unit away from noise-sensitive receptors such as bedroom windows or addressing the noise at the receptor such as enhanced acoustically rated windows. Encasing an ASHP with an acoustic enclosure can also mitigate noise pollution risks, whilst retaining air flow and not requiring much more additional outdoor space.

Appropriate maintenance of all heat pump units should be carried out to ensure that debris and dust does not build up in filters and the fan, which would subsequently limit efficiency.

Suitability/applicability across schemes

For new build development that must comply with Policy NZC2(B), ASHPs are suitable for the majority of building typologies, since they can be mounted outside



the building on the ground or a roof. For most 2- and 3-storey residential typologies, sufficient ground space should be available for ground-mounted units, whilst flatted blocks should be able to install units on the roof. However, roof-mounted units may reduce roof space available for on-site solar PV electricity generation.

In some cases, such as large-scale new schemes, a heat network of heat pumps may be more suitable than individual units. This is explained in the 'District heating' section.

Table 8:

Ground/water source heat pumps

What is it?

A ground source heat pump (GSHP) and a water source heat pump (WSHP) will operate in the same way as an ASHP in terms of heat transfer from outside to inside. However, a GSHP extracts heat from the ground through boreholes and pipework, whereas a WSHP takes heat from bodies of water such as rivers, boreholes and lakes. Flow temperatures are low and similar to ASHP is effectively paired with

underfloor heating or requires larger radiators. Both types of heat pump are also able to provide cooling.

How efficient is it?

The efficiency of a GSHP and WSHP is likely to be superior to that of most ASHP units over the course of a year, up to a COP of 4. This is because ground temperatures are more consistent due to higher heat retention, whereas an ASHP is vulnerable to fluctuations in air temperature.

A WSHP is even more efficient than a GSHP since water is an excellent thermal conductor and temperatures tend to be more stable than both air and ground temperatures.

Location and space requirements

A GSHP often requires a large outdoor space for horizontal channels or a deep vertical borehole.

GSHP can also be integrated with structural foundations,

e.g., ‘thermal piling’. Where a building already needs to invest in extensive foundations or deep piling, this may present an opportunity to maximise the benefits of this investment by integrating GSHP to these.

A WSHP requires a large body of water to extract sufficient heat (which can be surface water, or groundwater again via a borehole). If a WSHP is installed in a body of water too small, excessive heat could be removed and reduce the temperature to a level where freezing may occur.

The main units of a GSHP and WSHP can be located inside the building since the pipework collects the heat and therefore does not require air flow like an ASHP.

Applicants may find it helpful to refer to guidance from the [GSHP Association](#) which offers standards for vertical boreholes, horizontal exchanges, thermal piles and other guidance.

Things to be aware of (e.g. noise and visual impact)

Environmental constraints may limit where WSHPs can be installed. The same applies for GSHP as boreholes can have a negative impact on archaeology. The impact on ecology should be considered for both types of heat pumps.

Suitability/applicability across schemes

The suitability and applicability of GSHPs and WSHPs is not as widespread as of ASHPs because they both require specific settings to be feasible.

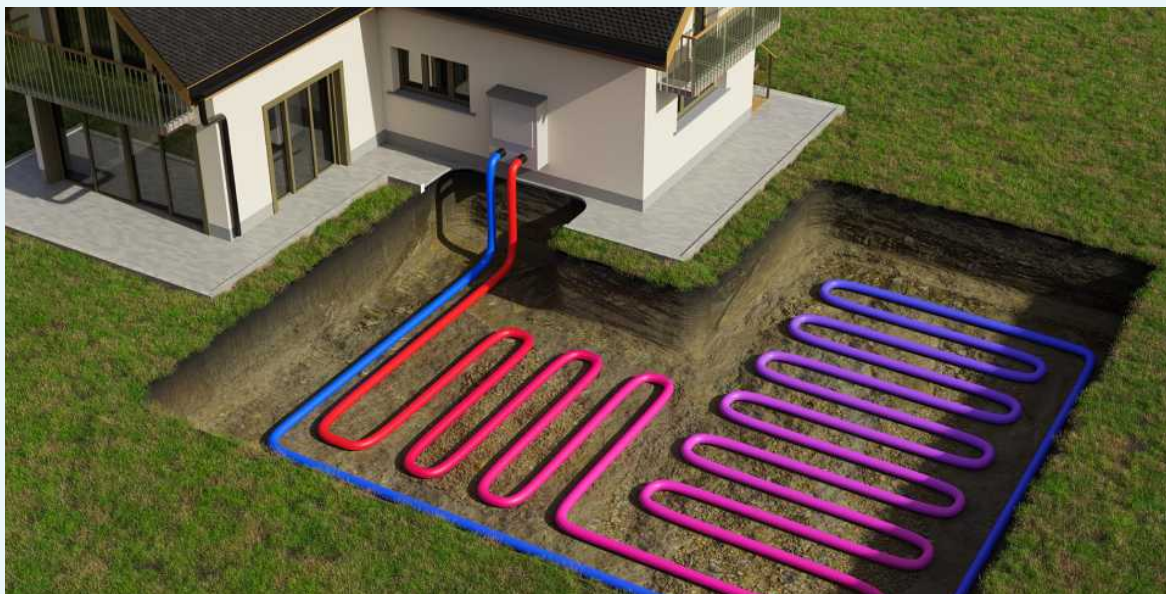


Table 9:

Domestic hot water storage

What is it?

Domestic hot water storage generally consists of a cylinder that stores pre-heated water for instant use throughout a house. Cylinder sizes can range from 50 – 500 litres, but 200 litres should be sufficient for an average four-person family. Heat pumps need cylinders with heat exchangers to deliver hot water.

How efficient is it?

The technology increases overall heating efficiency as excess heated water is stored in the tank for later use. Storage tanks reduce water wastage, whilst ensuring hot water is immediately available at all times.

Combining storage tanks with solar thermal energy generation is an efficient combination, whereby the heated water goes straight into the storage tank. This storage of solar renewable energy as hot water improves overall efficiency.

Location and space requirements

Suitable location required, such as an airing cupboard. Significant space around the unit is not necessary but flats may struggle to accommodate sufficient space.

Things to be aware of (e.g. noise and visual impact)

Sufficient insulation of the hot water tank and pipework is essentially for efficiency maximisation, particularly for piping that travels long distances through the building. This is also an important measure to avoid increasing the risk of space overheating in summer.

In accordance with the UK Health and Safety Executive, domestic hot water must be heated to and stored at a temperature of >60°C (amongst other storage and control measures) in order to prevent risk of exposure to Legionnaire's disease in residential and non-residential buildings. Heat pumps typically maintain a temperature of up to 55°C but comply with the requirement through a cleansing cycle that reaches 60°C.

Suitability/applicability across schemes

More suitable for larger homes where there is more demand for hot water but remain suitable in flatted schemes too, although issues could be apparent for space and location requirements.

Combined with heat pump technology, hot water storage will be required to store hot water, this can be provided by a hot water cylinder. The size of this cylinder depends on the amount of hot water the house/building requires. If there are spaces or other constraints that limit the ability for hot water storage, there are hybrid heat pump systems available to produce heating and hot water.



Table 10:

Heat recovery

What is it?

The two primary mechanisms for heat recovery in buildings are Mechanical Ventilation with Heat Recovery (MVHR) and Waste Water Heat Recovery (WWHR).

MVHR uses a heat exchanger to recover heat from ‘used’ or extracted air to pre-heat ‘fresh’ air to be supplied to the dwelling. Additionally, these systems improve indoor air quality by maintaining fresh air and removing stagnant air. WWHR operates

in a similar way, with heat from wastewater (e.g. used shower or bath water) being used to pre-heat water entering a boiler/water tank in order to reduce demand to heat water to a set temperature.

Recognised to be simple and effective ways to reduce energy demand heating, developers should consider both heat recovery options, especially in buildings predicted to have high heat demand.

How efficient is it?

Efficient MVHR units will operate at 88 – 90% heat recovery rates but are capable of recovering up to 95% of the heat in a building. MVHR is more efficient than natural ventilation and can be used for dwellings where noise and air pollution concerns exist, meaning windows cannot be opened. WWHR units are less efficient than MVHR units but are still approximately 55–60% efficient at recovering waste water heat.

Location and space requirements

It is essential that MVHR are accessible to carry out maintenance checks and to replace filters. The total height of the unit, sound-attenuating elements, manifolds and ducts will usually not exceed 2 metres. Throughout an average medium-sized house, ducts will not exceed 10cm and therefore do not require a significantly large space. Duct routing should however be carefully thought out to limit intrusion of ducts. Duct length should be as short as possible to mitigate heat loss risks.

WWHR units do not have any significant location or space requirements.

Things to be aware of (e.g. noise and visual impact)

MVHR can be noisy if not correctly installed, so appropriate acoustic treatment should be integrated. Systems should be designed into new buildings from the beginning, as the system should be present in every room in order to balance the ventilation requirements. Homes must be well insulated otherwise the efficiency losses could become costly.

Suitability/applicability across schemes

For both types of heat recovery, assuming the home is well insulated and has sufficient unit and duct space, suitability and applicability should be high. It will be increasingly difficult to integrate heat recovery systems the later they are considered in the design process.



Table 11:

Direct electric heating

What is it?

Direct electric heating uses panel heaters to heat internal spaces. It can also heat hot water being incorporated in the water fitting (e.g. instant hot water shower) and/or in an immersion hot water tank.

How efficient is it?

Direct electric heating is roughly three times less efficient than any heat pump technology, making it relatively inefficient compared to alternative technologies in addition to potentially higher energy costs for occupants. This should be carefully considered for occupants who are vulnerable to high energy costs.

Location and space requirements

Direct electric heating panels will typically be located in the same way as a traditional radiator. Direct electric hot water can be incorporated in the water fitting (e.g. instant hot water shower) and/or in an immersion hot water tank. No major space requirements.

Things to be aware of (e.g. noise and visual impact)

Direct electric heating has minimal noise or visual negative impacts but these benefits are outweighed by high running costs and relatively low heating efficiency compared to heat pumps.

Direct electric heating is not generally desirable unless the building fabric thermal efficiency is exemplary and solar electricity generation is also provided to offset some of the running cost.

Suitability/applicability across schemes

Technically achievable for the majority of schemes but direct electric heating installations would make compliance with Policy NZC2(B) significantly more challenging due to the inferior efficiency compared to heat pumps. Due to the potentially high costs of operating direct electric heating, it should be avoided in developments where the occupants may be vulnerable to energy costs, such as social housing.



Table 12:

Energy storage

What is it?

An energy storage system allows heat or electricity to be captured when it is readily available, typically from a renewable energy system, storing it for use later. The most common energy storage systems include electric batteries, heat batteries and thermal stores.

Electricity can be stored in electrical batteries, or it can be converted into heat and stored in a heat battery. Heat batteries store spare electricity or heat by containing material which capture this energy by changing from liquid to solid. Heat can also be stored in a hot water cylinder as thermal storage. (See ‘Domestic hot water storage’). Domestic-scale hot water storage is most common; however, larger communal hot water storage is also possible and can be effective in developments with large solar arrays or a shared heat network. When well-designed these can even deliver cross-seasonal heat storage, e.g. in an underground insulated tank.

Energy storage is useful for buildings that generate their own renewable energy, as it allows them to use more of their low carbon energy. Energy storage is seen as key to supporting the renewable transition, making best use of local energy resources, and supporting grid modernisation.

How efficient is it?

A typical residential solar system without a battery will cover about 30%-50% of household power consumption. With a battery system, this can be increased to 80%, 90% or potentially even 100% of household power consumption, by bridging the time gap between when solar energy is generated and when energy is used.

Location and space requirements

Battery storage units need to be in well-ventilated areas and away from sources of heat, including direct sunlight.

Units should be easily accessible for maintenance and should be enclosed and have suitable warning signs indicating that a large amount of energy is stored within.

In addition, batteries need to be able to be quickly isolated from the electricity network in the case of an emergency.

Batteries can be quite heavy so a structural engineer may be needed to review the storage location and recommend appropriate fittings to meet building regulations.

Things to be aware of (e.g. noise and visual impact)

Residential installations must be placed with consideration of proximity to sleeping and living areas and proximity to neighbouring buildings so it does not pose a risk to residents should the battery fail or catch fire.

Systems should be in an exterior location or in a garage or outbuilding. If placed on the exterior of the building they should be sensitively placed so as not to impact the visual amenity.



Suitability/applicability across schemes

Most suitable for homes that have installed Solar PV systems as they can help store excess generation and maximise the use of renewable energy.

Communal thermal storage is likely to be most effective in a development with a large solar PV array or shared networked heat.

Table 13:

Solar photovoltaic panels

What is it?

Solar photovoltaic (PV) installations produce electricity from sunlight and can be mounted or integrated into the roofs or façades of buildings or may be installed on the ground. They are a common form of renewable energy that is considered mainstream within the building industry.

PV arrays now come in a variety of shapes and colours, ranging from grey ‘solar tiles’ that look like roof tiles to panels and transparent cells that can be used on conservatories. PVs can be used to provide extra power for buildings already connected to the national grid or can also provide the only source of electricity for a building. They can be combined with green roofs.

How efficient is it?

The majority of solar panels on domestic systems in the UK are around 10-20% efficient although some types of solar panels can reach an efficiency level of up to 25%.

However, note that this efficiency tells you how effective a solar panel is at converting sunlight into electricity. Whilst this might sound like a low figure, a solar panel system can generate enough electricity to dramatically reduce energy bills and carbon emissions.

Location and space requirements

Space is a key consideration. The average system size is around 3.5kWp and this will typically take up around 20m² roof area.

An unshaded, South facing roof is ideal for maximum electrical output. East or West facing roofs could still be considered, but North facing roofs are not recommended. A system facing East or West will yield around 15-20% less energy than one facing directly South.

Roof structures and features including dormer windows and rooflights should be carefully designed as to maximise the available space for PV panels.

However, a ‘concertina’ pattern (with panels alternating between east and west facing) enables a greater total area of PV panels to fit within the given area of roof, and therefore a greater concentration of total kW generation per square metre of roof space. This kind of configuration can help buildings with a small ratio of roof area to floor area (that is, taller buildings) to achieve the targeted renewable energy generation.

Any nearby buildings, trees or chimneys can shade roofs and have a negative impact on the performance.

Things to be aware of (e.g. noise and visual impact)

There are visual impacts to consider – rooftop solar PV installations may not be appropriate and heritage and conservation designations must be considered. For ground mounted solar installations, the historic environment, landscape impact and short- and long-range views will need to be considered.

Generally, solar panels should not make noise, unless there is a structural defect or a problem with the installation.

Solar Panels can provide a space for birds, in particular pigeons to nest under. Consideration should be given to netting or mesh to avoid unwanted nuisance.

Suitability/applicability across schemes

Solar PV panels are considered ‘permitted developments’ and often don’t require planning permission. However, exceptions apply e.g. listed buildings and conservation areas.

Solar PV should be considered standard for new developments and the design of buildings should incorporate them. However, across the district care must be taken to ensure the visual impact is not adverse and there may be instances where they may not be appropriate.



Table 14:

Solar thermal

What is it?

Solar thermal uses the energy from solar radiation to heat a fluid within a collector (either a panel or tubes). The fluid can be water or a water-glycerol mix, which is then used in a hot water cylinder or thermal store to pre-heat domestic hot water. A boiler or immersion heater is often used to further heat the water or to top up the quantity of supply to meet demand.

How efficient is it?

Solar thermal system is considered to have efficiencies of between 70% and 80%¹⁹.

Variations in sunlight hours and solar radiation levels lead to seasonal variations in efficiency of these systems.

Often requires a top-up system as above and is required in addition to a space heating system.

The energy savings can lead to paying off the system within 12-20 years.

Location and space requirements

Most commonly installed on roofs, these can be installed anywhere (e.g.: at ground level, or on a garage roof) as the equipment is not heavy and not requiring additional structural/support requirements.

The main consideration is overshadowing, as the time the panels spend under direct solar radiation determines the efficiency of the system. Panels or tubes should be orientated between south east and south west to ensure that the most sunlight hits the panels/tubes.



Things to be aware of (e.g. noise and visual impact)

There are visual impacts to consider – rooftop solar thermal installations may not be possible and heritage and conservation designations must be considered.

Items for consideration also include ensuring systems are fully sealed and resistance to moisture and other weather, electrical safety, wind uplift and suitable fixings and structural loading (eg: snow collection).

You may require a larger hot water cylinder for the immersion heater top-up.

Suitability/applicability across schemes

In most cases, the system would be acceptable under permitted development, however restrictions may apply where a building is listed or in a conservation area.

It is most suitable for developments with high domestic hot water demand such as residential and hotel buildings.

¹⁹ www.open.ac.uk/blogs/design/what-is-the-problem-with-solar-thermal-panels

Table 15:

Combined Heat & Power engines (CHP)

What is it?

An engine (gas, biomass or biogas powered) that creates electricity and also captures the heat energy created in the process. Therefore, simultaneously creates both heat and power.

When additionally providing cooling, the systems are known as CCHP (combined cooling heat and power) and would include absorption chillers.

It is thought that in future, hydrogen-fired CHP may also emerge.

How efficient is it?

Most efficient when there is a significant heat demand – the heat load typically requires a development with a minimum of 50 homes before CHP systems are considered to be efficient.

They must also be used constantly in order to be most efficient, so the CHP should be sized to meet the annual base heating demand. CHPs over-sized will be less efficient and produce higher emissions, so peaking plant to avoid these should also be considered.

The choice of prime mover

that creates the outputs has an impact on the emissions created: commonly these are internal combustion engines and gas turbines. Gas turbines produce lower emissions and are more electrically efficient

Location and space requirements

Systems require a centralised energy centre with space for the engine, in addition to hot water tanks, distribution pipework also has to be buried.

Things to be aware of (e.g. noise and visual impact)

Local air quality considerations – burning any fuel locally can impact the quality of local air, especially when the fuel is burned on site, for example in a centralised energy centre or boiler room.

CHP systems supplied with fossil gas should be avoided as these lock the development into fossil fuel use for longer.

Where CHP systems are proposed, these should be low emission versions by up to date standards and benchmarks.

Where CHP is proposed, the long term trajectory to reduce



carbon emissions to zero must be considered, using SAP 10 carbon factors (or more recent versions).

Although hydrogen CHP may emerge in future, hydrogen is not yet a truly sustainable fuel, as its production currently either uses fossil fuel or takes multiple units of electricity to produce each unit of hydrogen, making it less efficient than simply using that electricity in its original state. However, technological innovation may solve this problem in future. Should hydrogen CHP proposals come forward, it will only be considered acceptable if it can be guaranteed that the hydrogen supply is not from fossil

fuel (unless the resulting carbon is guaranteed to be captured and stored permanently) or produced more efficiently and sustainably than if the required electricity were instead used directly at the site.

Suitability/applicability across schemes

Can be installed in centralised energy centres as part of a district-wide strategy. Best suited to new build non-residential schemes with consideration of the technology from the outset and where there is a high heat and electricity demand. Can use same heat distribution system as gas boilers – hot water >60 degrees with radiators.

Can be considered complex systems because of the need to balance the generation of heat and electricity, and as such systems must be designed and installed in accordance with best practice guidance and by specialist engineers.

Could potentially lead to higher energy bills for residents, therefore not a viable option where fuel poverty is a risk.

Table 16:

Biomass

What is it?

Using plant-based fuels or waste organic matter as a fuel within a boiler. Considered a renewable energy technology where the fuel source can be rapidly replenished.

Biomass fuel sources can include logs, woodchips, agricultural waste, industrial biological residues, or specially created wood pellets. Typical household systems tend to use logs, woodchip or pellets. These may heat a single room via a stove, or can heat multiple spaces and appliances via a biomass boiler.

How efficient is it?

Efficiency is dependent on the fuel used for combustion and the moisture content of the fuel, which can range between 94% (pellets) and 80% (wet woodchips)²⁰. Therefore, systems can offer a similar efficiency to gas boilers.

Although burning biomass releases CO₂ to the atmosphere, this can be offset by the CO₂ absorbed in the original growth of the biomass and/or the growth of new biomass to replace it (e.g. replanting commercial woodland after logging). Where this sequestration is taken into account, biomass boilers

sometimes claim emissions -70% lower than those of conventional gas boilers. However, see caveats about responsible fuel sourcing.

Location and space requirements

Siting of the boiler flue has to be considered and therefore biomass is often not appropriate on small spaces.

Space is required for storage of the biomass feed fuel - the size of store required depends on both the size of the biomass boiler and the frequency of deliveries of the fuel/distance to the fuel source. For example, a garage-sized store may be required for a large house so the store required may not be insubstantial.

In addition, the store should be able to accommodate the required fuel for a worst-case-scenario winter, which would have higher demand.

Local transport networks must be considered, for their capacity to accommodate transport vehicles such as trucks/lorries for fuel deliveries.

In addition, the carbon emissions and particulate matter from deliveries (as well as the biomass combustion itself) should be part of the feasibility considerations for this technology.

For this reason, on-site solutions such as heat pumps are often more favourable, both in terms of local

emissions affecting air quality, and also the associated carbon emissions.

Things to be aware of (e.g. noise and visual impact)

Local air quality considerations – burning any fuel locally can impact the quality of local air, especially when the fuel is burned on site in a centralised energy centre or boiler room.

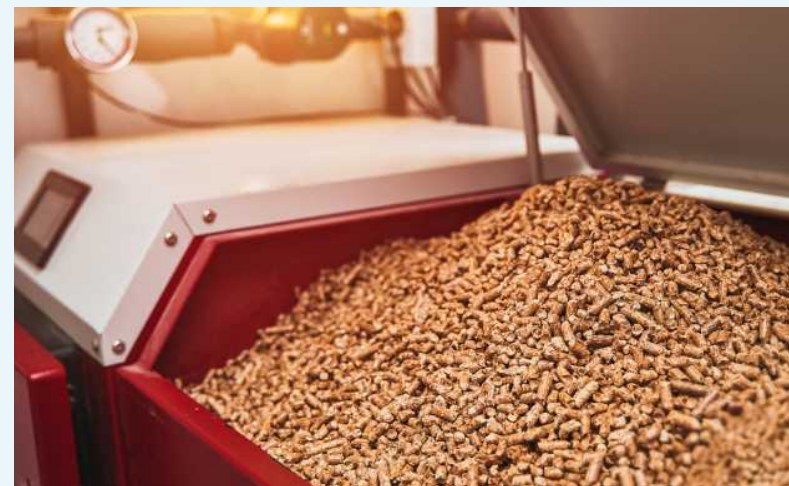
Carbon emissions and particulate matter are released both in the fuel transport and operation of biomass boiler.

In the Warwick District Air Quality Management Areas (AQMAs) a limit has been set for annual and hourly nitrogen dioxide limits²¹.

Biodiesel can also be used in some biomass systems but this is not recommended due to air quality implications as it composed of animal oils and fats.

The presence of and impact on local protected habitats and species (including birds and bats nesting/roosting in chimneys/roofs/sheds) must be fully investigated prior to installation of any biomass plant.

Responsible sourcing of biomass woodchip/pellets must also be demonstrated in order to certify this will not be associated with deforestation or forestry systems that fail to replant logged areas. Preference should be given to fuels that are a by-product



of other processes and are produced in the UK.

If external flues are required, there may be additional considerations around visual impact on any surrounding areas designated for natural or manmade heritage protection.

Further information on open fires and stoves Defra have produced the following guide. You can also visit the HETAS website for help. (www.hetas.co.uk)

Suitability/applicability across schemes

Can be retrofitted into existing buildings which have fireplaces and/or gas boilers and use radiators as the heat distribution system.

Can be installed in centralised energy centres as part of a district-wide strategy, or can be designed to heat a single room or dwelling.

Pellets are easier to use and can run automatically with fuel feeders which refill the boiler when the fuel runs low. Log-burning boilers must be filled by hand and therefore require more maintenance and intervention.

Unlikely to be suitable for schemes in urban areas due to air quality impacts.

²⁰ [https://usewoodfuel.co.uk/guidance-for-biomass-users/planning-a-biomass-installation/understanding-efficiency/biomass-boiler-efficiency/#:~:text=Manufacturers%20often%20state%20the%20combustion,%25%20\(for%20wet%20chips\).](https://usewoodfuel.co.uk/guidance-for-biomass-users/planning-a-biomass-installation/understanding-efficiency/biomass-boiler-efficiency/#:~:text=Manufacturers%20often%20state%20the%20combustion,%25%20(for%20wet%20chips).)

²¹ https://uk-air.defra.gov.uk/aqma/local-authorities?la_id=296

Table 17:

Wind

What is it?

Wind turbine blades are rotated in low to medium level wind, and this movement is used to generate electricity.

For electricity generation, small-scale wind generation is often considered a less viable solution than a PV array (so wind is more likely to be considered where large scale generation is possible).

<5kW micro turbines are most suitable at a building scale (with blade diameters up to 3m), whereas macro turbines can have a capacity up to 5MW.

How efficient is it?

In suburban areas for turbines at 10m in height and working at 10 metres/second, annual efficiency ranged between 20% and 40%.

Most useful in rural locations where electrical grid connection is/ less reliable or not available, where obstacles and availability of most suited wind conditions can improve the efficiency of standalone turbines.

Location and space requirements

Site context is crucial for deciding whether wind turbines are feasible, both for the siting of the turbines themselves and if the conditions are suitable.

Average wind speeds, required separation distances from neighbours, grid connection, site access and environmental and/or landscape designations all need to be considered.

Predominant winds and average wind speed to be analysed. The UK Wind Speed (NOABL) Database should be used as a baseline, but calculations should be modified to incorporate local geographical context (terrain and obstacles).

Separation distances from neighbours, and between turbines, where necessary, to be calculated. Best suited to rural locations due to the need to have undisturbed wind pathway to the turbines.

Can be operated in an off-grid manner or connected to local/UK-wide electrical grids. Where operated off-grid will need to be installed in collaboration with electrical battery storage to store electricity when it is generated but not used, and also to stabilise supply and demand. Where connected to the grid, battery storage can also aid in the

demand side response system.

Adequate and appropriate grid connection is required.

Site access for wind turbine construction and maintenance. Similarly, rooftop/facade access route and space is required where turbines are building-integrated.

Things to be aware of (e.g. noise and visual impact)

Considered to have potential noise impacts²², as turbine design develops, the noise concerns are becoming less of a barrier. Blade design has created low-noise options, in addition to vibration isolators, sound absorbing materials used for the gearbox and generator components can help reduce and minimise noise generation. Environmental Health may need to be consulted with regards to noise nuisance for neighbours.

Landscape and environmental designations will need to be fully considered and any impacts investigated. This includes local ecology and trees, local habitats (especially considering bird populations).

Historic environment and heritage views will also need to be considered.

Suitability/applicability across schemes

Building-integrated turbines can be used within new and existing developments.

Consideration must be given to wind speed and direction as these will impact the level of wind generation, and the number of hours the turbines can be operating at full capacity. For example, wind is strongest at night but local context will inform the number of hours the turbines can operate.

Planning permission may be required and will be subject to local and national policies relating to wind turbines.



²² www.ioa.org.uk/publications/wind-turbine-noise

Table 18:

Hydro

What is it?

Energy harnessed from falling or flowing water in rivers/dams, using kinetic energy to move turbines, create mechanical energy and drive a generator to create electrical energy.

Micro-hydro plant produce <50 kilowatts (kW), small scale plants between 50kW and 5 megawatts (MW) and large-scale plants >5MW²³.

How efficient is it?

Efficiency of the hydro turbine is usually >80%, which is double that of a steam engine.²⁴

The amount of hydroelectric power for a system is dependant on the vertical distance that the water falls (the ‘head’) and the level of water flow²⁵.

Location and space requirements

Local opportunities for hydropower may exist in areas with hills/waterfalls/weirs. Some local potential at weirs at Barford on the River Avon is identified in the [2021 Warwick Low Carbon Energy Feasibility report](#) (although there may also be other local opportunities).

The availability of a suitable water source and adequate space to develop a hydropower plant mean the number of feasible sites are quite restricted. Many of the viable sites for hydro have been

considered in the UK already.

Hydroelectric schemes in the UK typically are²⁵:

- storage schemes (using a dam).
- pumped storage using electricity to pump water between two reservoirs. Water is pumped when the demand and electricity price is low (e.g.: at night) and water is released when demand and price are higher. May not be considered fully renewable as it requires electricity central to its operation.
- run-of-river hydro using a weir to enhance the natural river flow.

development in order to fully consider potential environmental impacts on biodiversity, water wildlife and wider impacts from interrupting natural water flows; this includes consultation with the Environment Agency and Natural England.

Suitability/applicability across schemes

Please refer to the Warwick District Low Carbon Energy Feasibility Report (RINA Tech UK, June 2021).

Things to be aware of (e.g. noise and visual impact)

Before a scheme can be built, the upfront and operational costs, environmental permits, planning consent and connection to local electrical grid must be considered. These are in addition to heritage and historic environment considerations.

An ecologist must be appointed, and local environmental/conservation bodies must be consulted at early stages of

²³ www.gov.uk/guidance/harnessing-hydroelectric-power

²⁴ www.british-hydro.org/hydro-facts

²⁵ www.gov.uk/guidance/harnessing-hydroelectric-power



The role of district heating and cooling networks

5.6

District heating (DH) and cooling networks supply thermal energy (heating and/or cooling) to multiple buildings, usually from a centralised heat source (energy centre), through a network of insulated pipes and heat exchangers. District heating (or heat networks) are ‘energy source agnostic’ meaning they can accommodate a range of heat sources. These can include heat pumps (both ground and air source) and waste heat from industry or commercial uses.

5.7

DH networks can be designed for new-build schemes as well as allowing the connection of existing buildings. They can supply heat at the same conditions as existing individual boilers, allowing internal heating systems to remain unchanged, however newly designed heat networks can use lower temperature sources that operate at lower temperatures and a wider delta T (the temperature difference between supply and return) compared to individual boilers. This translates to lower energy consumption, both in terms of heat losses and pumping energy, but connecting to these can be problematic for existing, older buildings as their existing internal heating systems may not be designed to emit heat at a lower temperature (and may therefore need to be upgraded to operate at this lower temperature if connecting to such a network).

5.8

Shared heating and cooling networks can also operate on a partly decentralised heat source, e.g. heat removed by active cooling from offices, refrigerated areas and ICT server rooms could be inserted into the network and transferred to where it is needed (e.g. showers, laundries, etc). This is a key opportunity in mixed-use development, or residential development that takes place near existing large heat rejection, such as supermarkets, cold storage or ICT server farms.

5.9

As per Warwick Local Plan Policy CC2-Planning for Renewable Energy and Low Carbon Generation (point ‘e’) where possible, homes and buildings should maximise appropriate opportunities to address the energy needs of neighbouring uses and should link to existing or planned local carbon district heat networks where this would result in lower carbon emissions than a reasonable on-site alternative.

5.10

DH networks are often most beneficial for new development sites and in areas where there is a high energy demand density. Therefore, town centres or larger new-build masterplans are ideal locations due to the range of use classes and densities. However, heat networks can also be beneficial in rural, off gas areas where homes are currently reliant on more volatile energy source such as oil and LPG. Examples include the Swaffham Prior heat network in Cambridge that could connect up to 300 homes. The Swaffham Prior network will be fed by heat pumps (a combination of air-source and ground-source). In this instance the switch to low carbon energy sources and network can have wider benefits such as reducing instances of fuel poverty.

5.11

Where DH networks are specified, it is critical that all heat networks provide affordable, reliable year-round, hot water and heating and ideally also cooling where there is a cooling demand. Heat networks must demonstrate compliance with appropriate technical standards (currently [CIBSE's Heat Networks Code of Practice](#) for the UK) and be registered with the Heat Trust.

5.12

Consideration must also be given to the installation of the pipe networks and other wider development plans in the area and the potential impact on local landscape and biodiversity due to the scale of works required.

5.13

As per NZC2(B) of the Net Zero Carbon DPD, where DH networks are proposed, applications should be accompanied by an energy statement that includes an assessment of the advantages of a network system vs individual systems, an accurate assessment of distribution heat losses, a long term strategy for the sustainable supply of low carbon fuel and that the network has a credible route towards achieving zero carbon status. Consideration to the risk and mitigation of overheating is also required.



6.

Policy NZC2(C) - Carbon Offsetting

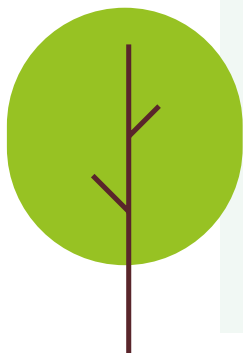


6.1

Applicants who cannot demonstrate full compliance with the suite of NZC policies, and achieve net zero operational (regulated) energy on-site, will be required to offset any residual regulated carbon emissions.

6.2

Carbon offsetting should only be used as a last resort, and only when an applicant has maximised on site carbon reductions through stages 1 and 2 of the energy hierarchy. The Council will only accept offsetting where it is demonstrated that measures under NZC2(A) and NZC2(B) are not feasible having regard to the design and type of development involved. This should be demonstrated within the Energy Statement and justification provided where Policies NZC2(A), NZC2(B) and on-site net zero regulated carbon is not achieved.



Policy NZC2(C): Carbon Offsetting

Where a development proposal of one or more new dwellings (C3 or C4 use class) and/or 1,000sqm or more of new non-residential floorspace, hotels (C1 use class), or residential institutions (C2 use class) cannot demonstrate that it is net zero carbon, it will be required to address any residual carbon emissions by:

- a cash in lieu contribution to the District Council's carbon offsetting fund and/or
- at the Council's discretion, a verified local off-site offsetting scheme. The delivery of any such scheme must be within Warwickshire or Coventry, guaranteed and meet relevant national and industry standards. If it is a nature-based carbon sequestration scheme, then it must be backed by the national government's Woodland Carbon Code initiative (or future replacement/equivalent national scheme) and meet the Warwickshire ecosystem service market trading protocol.

Where full compliance is demonstrably not feasible having regard to the type of development involved and its design, proposals must offset any residual carbon emissions to the greatest extent viable.

Contributions to an offsetting scheme shall be secured through Section 106 Agreements and will be required to be paid prior to the occupation of the development.

The amount of carbon to be offset will be calculated according to the SAP or SBEM carbon emissions submitted in the energy statement required under policy NZC(1). This must then be multiplied to reflect emissions over a period of 30 years from completion. Where "zero-carbon ready" technology is proposed, associated carbon emissions should be calculated in accordance with the stated national trajectory for carbon reduction of the energy source (i.e. annual [Treasury Green Book BEIS projections](#) of grid carbon intensity or future national equivalent).

The carbon offset contribution amount will be calculated within the energy statement at the submission

of the application. It must then be recalculated at completion and pre-occupation. Where assessment undertaken at completion shows that there is a performance gap between the design and the performance of the completed building, carbon offsetting contributions will be required to reflect any associated additional carbon emissions not accounted for at the point of determination of the planning application and an adjusted payment made if necessary.

The carbon offset price is the central figure from the [nationally recognised non-traded valuation of carbon](#), updated annually as part of the Treasury Green Book data by BEIS.

Funds raised through this policy will be ringfenced and transparently administered by the Council to deliver a range of projects that achieve measurable carbon savings as locally as possible, at the same average cost per tonne. The fund's performance will be reported in the Authority Monitoring report on: amount of funds spent; types of projects funded; amount of CO₂ saved.

6.3

Where there is genuine viability concerns the Council expects that contributions to the Carbon Offsetting Scheme are made to the greatest extent viable. See Section 11 of the Net Zero Carbon DPD.

6.4

The Energy Pro-Forma (Annex 1) includes the calculation of any residual emissions and the total monetary value of carbon offsetting required for a development. The Pro-Forma includes the following options for calculating the monetary value of offsetting:

- Static offset: applying the BEIS carbon value over the 30-year period

- Dynamic Offset: incorporating the BEIS projections for grid decarbonisation over the 30-year period - this approach is only recommended for wholly electric schemes.

These funds represent a contribution to the Council's Carbon Offsetting Scheme which would be secured via a Section 106 agreement and paid before the occupation of a development.

6.5

The Section 106 agreement would include the Council's approved formula for calculating the offsetting amount based on the 'as built' calculations of carbon emissions as submitted via a discharge of condition. This is to ensure that the offsetting contributions reflect

the residual carbon emissions of a building as constructed.

6.6

Contribution to Warwick's Carbon Offsetting Fund is the preferred form of offsetting as the Council are already partners in a verified scheme of delivering carbon offsets through woodland creation within Warwickshire.

6.7

Warwickshire County Council have prepared the Warwickshire Environmental Services Trading Protocol (WESTP). The WESTP details what nature-based solutions are available to compensate for development and outlines the principles and rules for the creation, enhancement and maintenance of habitats by landowners in order to be traded as compensation units.

6.8

The Council's prioritised method of carbon offsetting is through tree planting and aligns with Warwickshire's target to plant 566,000 trees by 2030. Warwickshire's Natural Environment Investment Readiness Fund (NEIRF) Report identifies that 1 tree can offset 1 tonne of carbon in its lifetime, providing that the trees are managed in good condition to maturity.

6.9

In the future the Council will also consider applying the carbon offset fund to other forms of carbon offsetting, including other habitat creation/restoration, retrofit of council owned buildings for improved energy efficiency, or the provision of renewable energy. It is important to note that funds received from offsetting would not fund projects where funding could be secured from other sources or grants. Projects must demonstrate that funding from the Council's Carbon Offset Fund would be 'make or break' for the project, and that the carbon emissions saved relate exactly to those which are being offset.



Can applicants provide carbon offsets directly rather than contributing to the Council's Offsetting Fund?

6.10

NZC2(C) includes the mechanism for applicants to offset residual carbon emissions through a verified offsetting scheme. This is at the discretion of the Council and will only be deemed acceptable where an applicant can demonstrate that the offset scheme is:

- Located in Warwickshire or Coventry.
- Guaranteed to meet national or industry backed standards.

- For nature-based solutions:
 - Registered with the Woodland Carbon Code;
 - Created and maintained for a period of 100 years;
 - Adheres to the Warwickshire landscape character guidelines
 - Complies with the Warwickshire's Ecosystem Trading Protocol (WESTP), including the Compensation Hierarchy

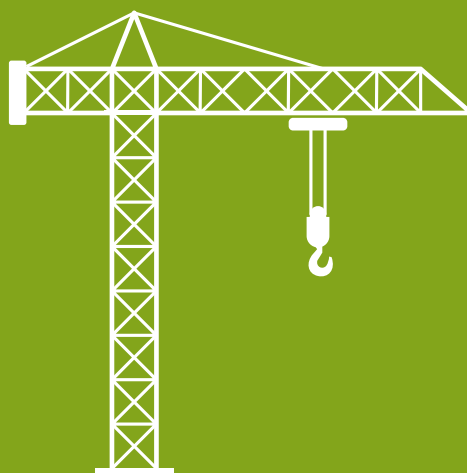
6.11

Carbon offsetting undertaken through the Council's offsetting fund scheme will meet the requirements set out above through the WESTP, and such it is the expectation that applicants will use the opportunity to contribute to the Council's fund over organising their own scheme which meets the requirements.



7.

Policy NZC3 - Embodied Carbon



Policy NZC3: Embodied Carbon

New major development should demonstrate in the energy statement or design statement how the embodied carbon of the proposed materials to be used in the development has been considered and reduced where possible, including with regard to the type, life cycle and source of materials to be used.

Proposals for development of 50 or more new dwellings and/or 5,000sqm or more of new non-residential floorspace should be accompanied by a whole-life assessment of the materials used.

Embodied carbon overview

Table 19: Summary of Policy NZC3

Threshold	Requirement - Outline applications	Requirement - Reserved matters / Detailed applications	To be submitted
New major development	Set out the embodied carbon strategy for the development, where relevant setting out methodology and targets to be considered at the detailed design stage.	Demonstration of how embodied carbon has been considered and reduced where possible.	Energy Statement
Proposals for development of ≥50 new dwellings and/or ≥5,000sqm	Set out the embodied carbon strategy for the development, setting out methodology and targets to be considered at the detailed design stage. Provide an estimate of the embodied carbon of the proposed development utilising the RICS Whole Life Carbon Assessment methodology.	Demonstration of how embodied carbon has been accounted for and reduced where possible.	Whole-life embodied carbon assessment

7.1

Policy NZC3 sets out the following requirements in Table 19.

7.2

Embodied carbon relates to emissions associated with materials, construction processes, maintenance/refurbishment during their lifetime and the eventual end of life of a development, measured in kgCO₂e (kilogrammes of carbon dioxide equivalent²⁶).

For example, carbon emissions associated with the energy used in the manufacturing process of extracting and producing a product, transporting it to the site, assembling it into a building or using it to maintain or refurbish that building.

7.3

For embodied carbon assessments, embodied carbon is usually reported as kilogrammes of carbon per m² (GIA).

7.4

The majority of a building’s embodied carbon is associated with the construction of the building, but a smaller amount of embodied carbon is also associated with the building’s lifetime through refurbishment and maintenance, and its eventual demolition and disposal. Table 20 provides a summary of the associated carbon emissions per stage of a buildings lifetime.

²⁶ Carbon dioxide equivalent refers an amount of different types of gas that have a global warming effect, expressed as the amount of carbon dioxide that would have the same degree of global warming effect within a 100-year period. It is a way of making different greenhouse gases comparable to each other.

Guidance on embodied carbon assessments

7.5

For both major and super-major developments, design principles for embodied carbon reduction should be adopted throughout the planning and construction process. The set of principles noted in the [Greater London Authority Whole Life-Cycle Carbon Assessment guidance](#) provides a good example and include:

- Reusing and retrofitting existing built structures
- Utilising repurposed or recycled materials
- Choosing low-carbon materials (e.g. timber, lime or low-carbon production materials)
- Fabric first approach to holistically reduce embodied and operational carbon

- Low-carbon operational water use
- Design for future deconstruction and reuse
- Design an efficient building shape and form
- Incorporate carbon sequestering materials
- Design for durability and flexibility
- Address embodied and operational carbon reductions together
- Determine expected building lifespan
- Source materials locally
- Minimise waste
- Efficient and lightweight construction
- Follow circular economy principles

7.6

Applicants for major developments should demonstrate through their Energy Statement how the proposed development aims to achieve embodied carbon reductions against each of the principles identified above. Reduction measures should be considered in relation to the specific setting and type of development, but the principles and measures in the list above should be used as a starting point to develop a detailed strategy.

7.7

Embodied carbon assessments, of the type relevant to the scale of the proposal, will be required to be submitted at each stage of the planning process:

- **For Outline Planning applications:** Applicants should identify the expected design principles and materials and how embodied carbon has been considered and reduced.
- **For Full Planning applications, Reserved Matters and S73 applications:** Applicants should identify how the selection of the specific proposed building design and materials has considered embodied carbon and how this has been reduced.

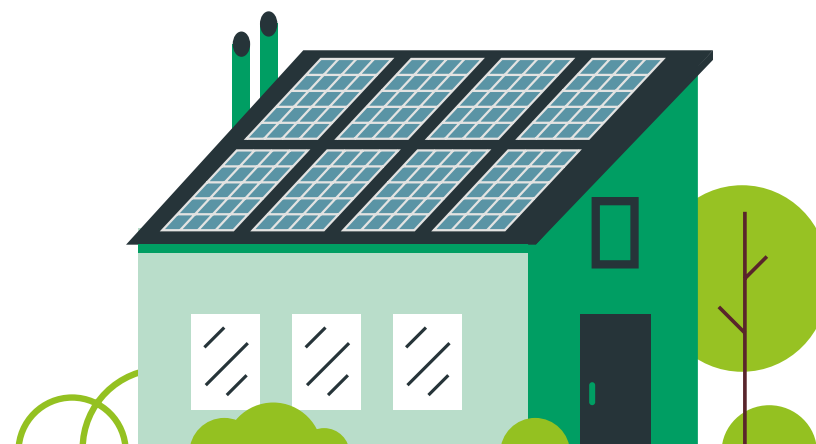
7.8

The following materials have high embodied carbon and should be replaced with lower impact alternatives where possible or used as sparingly as possible via efficient design:

- Concrete and cement
- Steel
- Other metals (e.g. aluminium, zinc and copper)
- Plastic and glass
- Materials that require long-distance transportation between source and site, especially by road.

Table 20: Overview of embodied carbon emission sources in the stages of a building's lifetime.

Embodied Carbon Process	Emissions Source
Raw material extraction	Extraction of raw materials uses energy and commonly result in carbon dioxide emissions, particularly for timber, metals and minerals. Mining and refinement add to emissions.
Manufacturing and processing	CO ₂ produced during this process often requires heavy machinery that operates at high temperatures and subsequently emit large quantities of CO ₂ .
Transportation	Material transportation from source to construction sites can often involve long distances, which is often through carbon intensive transport methods.
Construction and assembly	The majority of these emissions arise from on-site energy use from machinery to assemble the building. Site lighting and site office heating can also contribute a significant amount.
Maintenance and operation	In-use maintenance of structures and systems, involving consumption for heating, lighting and cooling.
Demolition and disposal	Embodied carbon emissions are heightened throughout this process if building materials are simply demolished, incinerated, or placed in landfill to decompose. Reuse of materials should be prioritised.



7.9

When considering the replacement of materials with high embodied carbon, the **Materials Pyramid** (Figure 5) is a useful high-level tool to identify what alternative sustainable materials are suitable for the development to reduce embodied carbon, and how much improvement these deliver against the more conventional materials.

7.10

To increase understanding of the impacts of typically used materials, the **LETI Embodied Carbon Primer** Appendix 8 provides in depth analyses of primary construction materials, such as timber, aluminium, glass, steel and bricks. Applicants are encouraged to review this guidance to determine appropriate material selection for their development, or at the minimum consider low embodied carbon materials as per Materials Pyramid.

Figure 5:



Construction materials pyramid. Materials on the top of the pyramid have the highest embodied carbon, therefore should be used most sparingly and where possible substituted with materials further towards the bottom of the pyramid. Interactive version available: www.materialepyramiden.dk

7.11

For major development, which is not required to complete a whole-life embodied carbon assessment, the Council requires that applicants demonstrate consideration to the actions noted below to illustrate how embodied carbon has been reduced where possible.

- Using reused materials
- Using cement replacement, cement products with clinker replacement, or using less cement
- Using recycled aggregate
- Using renewable materials e.g. certified sustainably sourced timber or other plant-based materials
- Using steel sourced from producers that use electric arc furnaces rather than coal-fired furnaces
- Replacing high-carbon materials with lower-carbon materials as per the [Materials Pyramid](#)
- Using products with EPD specification or from the [BRE Green Guide to Specification](#).

7.12

To provide evidence of the consideration and reduction of embodied carbon, major development may submit 'life cycle assessment' calculations or other evidence that may have been produced within the following common industry certifications/ approaches:

BREEAM:

- Output from BREEAM LCA tool. These will have been produced where the scheme is targeting credits under BREEAM topic 'Mat 01' ('Environmental impacts from construction products - Building life cycle assessment'). This is not a minimum credit required for any BREEAM rating, but will help a development to achieve the minimum total percentage score for the BREEAM rating that it is targeting.

- Evidence produced in support of BREEAM credit Mat 02 ('Environmental impacts from construction products – Environmental Product Declaration'). Again, this credit is optional within BREEAM but would contribute towards the overarching BREEAM score.

Home Quality Mark (HQM):

- Evidence produced in support of HQM topic '6.2 Environmental Impact of Materials'. These may include the LCA output and/ or evidence of specification of products with environmental product declarations (EPDs). As with BREEAM Mat 01/02 (above), this topic within HQM is optional but will earn points towards an overarching HQM score.

BRE Green Guide

- Evidence that the proposed scheme has prioritised materials according to the [BRE Green Guide to Specification](#).



Whole Life Embodied Carbon Assessment methodologies

7.13

The industry standard method to account for a building's embodied carbon is the [RICS Whole Life Carbon Assessment for the Built Environment](#). This is based on the relevant British and European Standards. The RICS method defines the various parts of the building that should be assessed, and divides the stages of a building's life into several stages or 'modules' as follows:

- **A1-A5:** All stages up to completion of the building. This is also known as 'upfront embodied carbon'.
- **B1-B5:** The building's in-use lifespan. Includes use, maintenance, repairs, replacements, refurbishments.
 - (Sometimes also includes B6 and B7, which relate to operational energy use and operational water use respectively).
- **C1-C4:** End of life of the building and disposal of its waste materials.

7.14

A 'Whole life embodied carbon' assessment therefore refers to the sum of all carbon in stages A1-A5, B1-B5 and C1-C4.

7.15

The largest contributor to embodied carbon is through stages A1-A5. Carbon emitted through these stages occurs 'today' and can therefore have a greater contribution to reducing carbon emissions to meet local, national and international carbon targets.

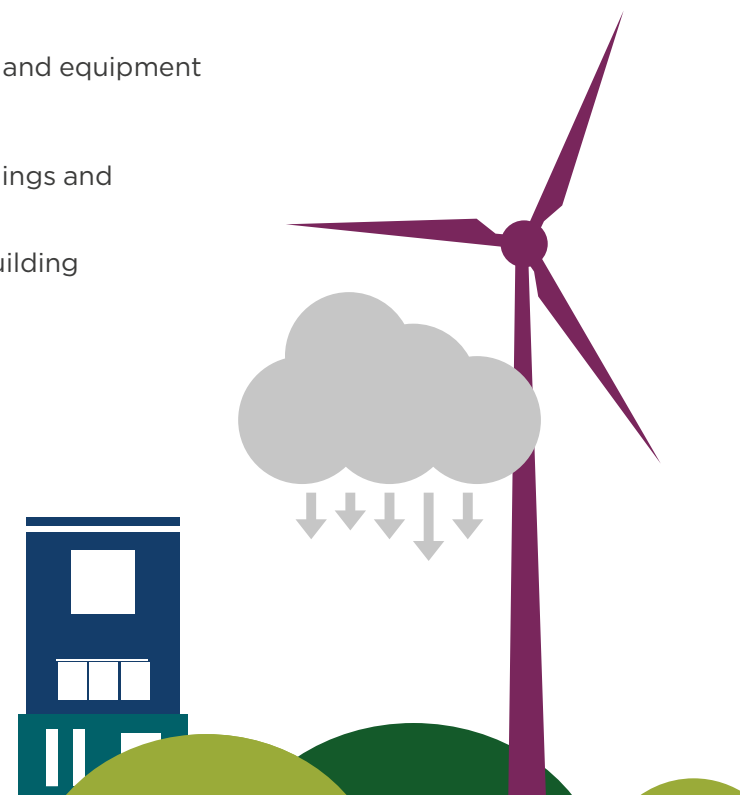
7.16

For super-major developments, applicants are required to complete a whole-life embodied carbon assessment, the following construction elements should be examined, as set out under [NRM 2](#) (RICS) and following the [RICS Whole Life Carbon Assessment](#) method:

- Substructure
- Superstructure
- Finishes
- Fittings, furnishing and equipment
- MEP services
- Prefabricated buildings and building units
- Work to existing building
- External works

7.17

The RICS methodology is the only extant such methodology that the Council is aware of; however, should applicants propose an alternative methodology in future this must also conform with [BS15978 Sustainability of construction works](#) or relevant successor standard of the same or improved quality.



Estimating the embodied carbon of materials and products

7.18

The following sources of data are preferable for reliable embodied carbon estimations:

- **Environmental Product Declarations** for specific products you propose to use – these are certificates disclosing the embodied carbon (and other environmental impact factors) that are based on the specific conditions in which an individual product is produced. Not all products on the market have EPDs, but many products claiming ‘green’ credentials do have these to evidence their claims. You can use embodied carbon data from EPDs in combination with

generic embodied carbon data for other products or materials from the databases noted below. EPDs should conform with relevant standards including ISO 14025: 2010 (Environmental labels and declarations. Type III environmental declarations. Principles and procedures).

- **The University of Bath ICE database** – free-to-use; registration required.
- **Built Environment Carbon Database** – currently in development (as of the time of writing this SPD) led by RICS along with several other industry bodies.

7.19

Where specific carbon factors are not available, carbon factors can be manually generated using the [RICS Methodology to Calculate Embodied Carbon of Materials](#). Associated assumptions and principles should also be addressed, which are set out in the Institution of Structural Engineers’ [How to Calculate Embodied Carbon for Construction Materials](#) guidance.

7.20

LETI guidance also lists out the actions for embodied carbon at each stage of the project, listing actions for the designer and for the life cycle assessment specialist at each RIBA Stage (see Appendix 0.2 of the [LETI Climate Emergency Design Guide](#)).



Industry benchmarks for embodied carbon

7.21

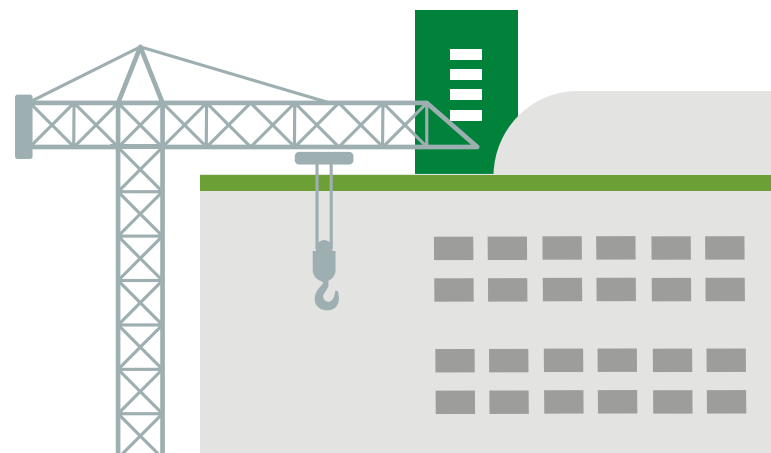
Developed by building environment professionals and experts, the [RIBA 2030 Climate Challenge](#) sets voluntary targets for embodied carbon, operational energy and water consumption. Version 2 of their targets has been updated so that embodied carbon targets align with LETI, GLA and UKGBC guidance. RIBA states that the Climate Challenge “presents ambitious but achievable forward-facing performance outcomes that are in line with the Future Homes Standard and future regulation, set against business-as-usual compliance approaches”. In their guidance, buildings should adopt the 2025 guidance as a minimum where buildings are being designed today, since the targets are based upon operational performance (as it is likely that buildings designed today will be completed closer to 2025).

7.22

Although applications subject to NZC3 are not required to meet specific embodied carbon emissions targets, it is highly important to understand best practice benchmarks when considering embodied carbon in new developments. Super-major applications in particular, which are required to complete a whole-life embodied carbon assessment, should aim to achieve the 2025 targets set out below in Table 21.

Table 21: RIBA Climate Challenge suggested targets for whole life embodied carbon, differentiated by use.

Use type	Embodied carbon target	Business as usual (kgCO ₂ e/m ²)	2025 target (kgCO ₂ e/m ²)	2030 target (kgCO ₂ e/m ²)
Residential	Life cycle stages A1-A5, B1-B5, C1-C4, AND sequestration	1200	<800	<625
Commercial office	Life cycle stages A1-A5, B1-B5, C1-C4, AND sequestration	1400	<970	<750
School	Life cycle stages A1-A5, B1-B5, C1-C4, AND sequestration)	1000	<675	<540



8.

Policy NZC4 - Existing Buildings



Policy NZC4: Existing Buildings

All developments should demonstrate a consideration to sustainable construction and design in accordance with Local Plan Policy CC1 ‘Planning for Climate Change Adaptation’.

In addition, all development should consider alternatives to conventional fossil fuel boilers. This should be explored through a Low/Zero Carbon assessment of low carbon energy supply options within the submitted application documents.

Development proposals which would result in considerable improvements to the energy

efficiency, carbon emissions and/or general suitability, condition and longevity of existing buildings will be supported, with significant weight attributed to those benefits.

The sensitive retrofitting of energy efficiency measures and the appropriate use of micro-renewables in historic buildings, including listed buildings, locally listed buildings and buildings within conservation areas will be encouraged, providing the special characteristics of the heritage assets are conserved in a manner appropriate for their significance.

8.1

Policy NZC4 requires that for developments relating to existing buildings (including extensions and conversions) applicants should demonstrate that sustainable construction and design has been considered in line with Local Plan Policy CC1. Policy NZC4 requires that applicants consider the alternatives to fossil fuel boilers and submit an assessment of low carbon energy supply options with their application.

8.2

Applicants are also encouraged to demonstrate how sustainable design, material choices and construction methods will also reduce carbon emissions through construction and operation. The Council recognises the significant opportunity to reduce the District’s carbon burden by retrofitting existing building stock, and will apply significant weight to proposals that deliver energy and carbon savings in existing buildings. The guidance in this section aims to outline a range of potential carbon-saving interventions in existing buildings according to the energy hierarchy.

8.3

Policy NZC4 recognises the value of embodied carbon in existing buildings and encourages an approach to existing buildings that pursues energy efficiency measures, low carbon energy supply, and renewable energy generation, relevant to the scope and scale of the proposed development/redevelopment to ensure that buildings contribute to lowering carbon emissions over the course of their lifespan.

8.4

Retrofit strategies can be identified by the level of intervention, including:

- very low cost or free quick wins;
- low cost and technically easy measures;
- high cost and technically difficult measures and deep retrofit requiring technical expertise.

Fabric First Approach

8.5

These measures are often at a lower cost and quick to implement, but form an important part to lowering carbon emissions from existing buildings. Measures can often be made in operation or continued use of the building and can include:

- **Energy saving measures:** fixing draughts or areas of damp, installing low energy lighting or appliances, and reducing wasted energy through behavioural change.
- **Water saving measures:** fixing leaks and reducing total demand for water through fittings and or behaviour change.

8.6

Building fabric interventions; upgrading windows and doors, installation of secondary glazing, improved levels of insulation (cavity wall/ceiling insulation/raft roof/loft/floor), and chimney improvements.

8.7

Building fabric upgrades and improved energy efficiency should always be addressed prior to low carbon energy sources or renewable energy.



Employing low or zero carbon technologies

8.8

NZC4 requires all developments to consider alternatives to fossil fuel boilers through the submission of a planning application. NZC4 requires that applicants assess, and implement where feasible, low or zero carbon technologies as an alternative to new fossil fuel boilers. This assessment should be presented in a Design Statement proportionate to the type of application e.g. where a small extension is proposed it may not be feasible to replace a fossil fuel boiler but fabric first measures should still be considered.

- Heat recovery systems
- Direct electric heating
- Energy storage
- Biomass heating
- Combined heat and power
- Solar photovoltaic panels
- Solar thermal
- Wind generation
- Hydro

8.10

The **UK Government's Heat and Buildings Strategy (2021)** set out to define the transition to low carbon buildings, including halting any new gas connections to homes from 2025 (and replacement gas boilers from 2035), in favour of low carbon heat strategies. Alternatives to gas boilers are explored in Section 5, in this SPD. The Council will expect applicants to outline what alternative measures are feasible to be included within the development with reference to the site's context and any constraints.

8.9

Applicants should consider the use of the following for retrofitting into existing buildings and should refer to the guidance provided on the technologies in Section 5 above:

- Air source heat pumps
- Ground or water source heat pumps
- Domestic hot water storage

8.11

Installation of heat pumps can provide economic benefits and will provide significant carbon emission benefits to homeowners. Installation of a heat pump could reduce a home's heating carbon emissions by at least 60% today (compared to a gas boiler system), and the home will decarbonise further over time as the electricity grid decarbonises. However, consideration should be given to any accompanying measures needed to make the existing building suitable for these. For example:

- Heat pumps can run more efficiently in well insulated buildings that are able to retain their heat for longer. Some existing buildings will need improvement of airtightness and/or insulation in order for the heat pump to provide good value for the occupant. Without this, running costs may become excessive due to the price of electricity.
- Because heat pumps typically deliver heat at a lower temperature, the building may need larger heat emitters (larger pipework and radiators or underfloor heating); the conventionally sized existing radiators used with an existing

gas boiler are likely to no longer be suitable. Without the larger heat emitters, the system may not heat the building effectively to a comfortable temperature.

8.12

Mechanical ventilation with heat recovery is similarly most effective in buildings that have good insulation and airtightness.

8.13

Each building and low carbon heat and energy options should be appraised on a case-by-case basis. Homeowners should consult with a PAS 2035 accredited retrofit coordinator if possible, to develop a bespoke retrofit plan. Installation of a heat pump is a skilled activity; building owners should consult with a qualified and experienced MCS certified installer for a quote based on an in-person inspection of the building.

8.14

Energy efficiency approaches can also include improved air tightness, insulation, glazing, and ventilation strategy improvements in addition to consideration of overheating mitigation measures.

Recommended retrofit targets and quality assurance standards

8.15

Recommended targets that applicants could pursue in order to demonstrate that their proposal delivers significant benefits include:

- **40kWh/m²/year space heating energy demand:** A target taken from the [LETI Climate Emergency Retrofit Guide](#). Policy NZC4 expects this target to be considered and recommends that it is applied for proposals including alterations, extensions, and changes of use.
- **LETI Climate Emergency Retrofit best practice guidance** recommends: a space heat demand limit of <50 kWh/m² / year; a hot water demand limit of 20 kWh/m² /year; an energy use intensity (EUI) limit of 50 kWh/m² /year; and for 40% of the roof area to be covered in PV panels.

- **The Passivhaus Trust retrofit EnerPHit methodology** sets a **space heat demand limit of <25kWh/m²/year**, in addition to primary energy/primary energy renewable limit of <65.5kWh/m²/year, surface temperature limit of >17 degrees Celsius, summer overheating limit of 10% at >25 degrees Celsius, ventilation rate minimum of 30 m³/hour/person and airtightness limit of <1 air change per hour @ 50 Pascals. The Council considers that this would represent exemplary performance in an energy retrofit.

8.16

Significant weight will be attributed to applications that demonstrate considerable improvements to energy efficiency, carbon emissions, condition, and longevity of existing buildings – such as those which achieve the recommended targets above. A building that is low-carbon and affordable to run is more likely to remain in use in the long term.

8.17

The above targets from LETI and EnerPhit frameworks, where pursued, would need to be calculated using energy modelling methods proven to be accurate in their ability to predict buildings' energy demands. Building Regulations National Calculation Methods SAP and SBEM are not well suited to this as they are not typically accurate in reflecting actual performance. Instead, the applicant is likely to find the most utility in alternative accurate energy modelling methods such as PHPP or CIBSE TM54. These can be used to plan and evaluate the performance of the retrofit, and to demonstrate the proposals' benefits within the planning application.

8.18

Many of these targets may also be verified through actual in-use energy monitoring. Performance in line with the EnerPhit approach can be demonstrated via EnerPhit certification.

8.19

Finally, retrofit interventions have the opportunity to not only improve energy efficiency, potentially lower the cost of energy bills, but also to improve the thermal comfort of occupants and thus support the health and wellbeing of building users.

8.20

Certain standards are available to assure the quality of energy retrofitting, two of which are noted as follows. Application evidence of the implementation of these will be looked upon as a measure that is likely to improve the credibility and quality of proposals relating to existing buildings:

8.21

PAS 2035 is a best practice standardised process for retrofitting dwellings for energy efficiency in the UK. PAS 2038 is the equivalent process for non-domestic buildings. They allow retrofits to be Trustmark certified, providing security and reducing risks for building owners. Using PAS 2035, a risk appraisal can be carried out to demonstrate how retrofit measures have been carefully designed to minimise overheating risk (from increased airtightness) and minimise health risks to occupants (including condensation, mould and improper ventilation).

8.22

BS 40101 is the standard for building performance evaluation of occupied and operational buildings (using data gathered from tests, measurements, observation and user experience). This provides designers and procurers of buildings with insights into the performance of the building for the purpose of planning and implementing retrofit, modification and improved management of existing buildings.

8.23

Please also refer to the following external guidance:

- [LETI Climate Emergency Retrofit Guide](#) (LETI, 2021)
- [Net Zero Carbon Toolkit](#) (Etude, Elementa, Passivhaus, Levitt Bernstein, 2021); or
- Passivhaus Trust's [Retrofit Primer](#) (version 2, 2022)

8.24

In an average home, fabric improvements or the installation of low or zero carbon technology are unlikely to require planning permission. However, planning permission may be required where the proposed measures affect the external appearance of a building. Applicants are urged to check what permitted development rights are available to them, and if unsure contact the Council before implementing these measures, or applying for planning permission.

8.25

Internal or external alterations to listed buildings will require listed building consent – please see the following section below.

Historic Buildings and Contexts

8.26

Some measures noted in the above two sections require further consideration when dealing with historic buildings (designated and non-designated heritage assets, including locally listed buildings) and buildings in a Conservation Area. However, the sensitive retrofitting of energy efficiency measures and the appropriate use of micro-renewables will be encouraged, providing the special characteristics of the heritage assets are conserved in a manner appropriate for their significance. Applicants may find it useful to refer to [guidance from Historic England²⁷ on Retrofit and Energy Efficiency in Historic Buildings](#) (Historic England, 2020).

8.27

In line with new buildings, building fabric upgrades and improved energy efficiency should be addressed prior to low carbon energy sources or renewable energy.

For further guidance please refer to the [Council's Energy Efficiency for Historic Buildings Guidance](#). This provides further details on the general principles and retrofit solutions for historic buildings.

²⁷ Historic England (2023), *Retrofit and Energy Efficiency in Historic Buildings*.



Glossary



Term	Term Acronym Used	Definition
Air Permeability or Airtightness	-	A measure of how much (or how little) air leakage a building experiences, due to its fabric. Measured in air changes per hour at a pressure of 50 pascals, sometimes abbreviated to 'ACH@50PA'. Air permeability is one of notional building specification elements defined by Building Regulations Part L.
Air Source Heat Pump	ASHP	A form of low-carbon heat delivery in which an electrical pump utilises a reverse-refrigeration cycle to absorb free energy from outdoor air and emit it at a higher temperature indoors. Considered partially or fully renewable as the ASHP uses electricity to run, but delivers more heat energy than it consumes in electrical energy. Can be fully renewable and zero carbon if run entirely on renewable electricity.
British Standard 40101	BS 40101	An independent and non-statutory building performance evaluation standard for occupied and operational buildings.
Building Emissions Rate	BER	A metric used in Building Regulations Part L to express the predicted carbon emissions rate of a non-residential building associated with its regulated energy uses. See also TER.
Building Regulations	-	National legal requirements for minimum quality standards in buildings. Different 'parts' of Building Regulations cover various topics including energy conservation, and access and use of buildings by people, including disabled people. The section relating to energy and carbon is 'Part L'.
Building Regulations Approved Document Part L	-	Conservation of fuel and power; this the part of Building Regulations that sets minimum standards for energy-related carbon emissions and efficiency of buildings.
Building Research Establishment (Group)	BRE	A building science research entity which, among many other roles, hosts and updates the calculation methods 'SAP' and 'SBEM' that are used to measure compliance with Building Regulations Part L. Formerly a civil service body; now owned by a charitable trust.
Building Research Establishment Environmental Assessment Methodology	BREEAM	A voluntary sustainability certification for buildings, covering topics including energy, materials, waste, water, health, ecology, pollution, transport, and management. Offers several levels of achievement from 'pass' to 'outstanding'. Mainly used in non-residential but is also available for multi-residential.
Carbon Offsetting	-	Payments made, or actions taken, to remove or reduce a certain amount of carbon to match a certain amount of emissions. Where a development must offset any residual carbon emissions, either through contribution to the District Council's fund, or to a verified local off-site offsetting scheme.
Chartered Institute of Building Services Engineers	CIBSE	Professional association body for Building Services Engineers
Coefficient of Performance	COP	A ratio used to indicate the performance a heating, ventilation or air conditioning system offers.

Term	Term Acronym Used	Definition
Combined Heat and Power	CHP	A highly efficient process that captures and utilises the heat that is a by-product of the electricity generation process.
Direct Electric Heating	-	Systems in which heat is generated directly within a material by passing an electric current through; e.g. convector heaters or electrical underfloor heating. The source of electric can be renewable or non-renewable.
Dwelling Emissions Rate	DER	A metric used in Building Regulations Part L to express the predicted carbon emissions rate of a dwelling, associated with its regulated energy uses. See also TER.
Embodied Carbon	-	Carbon that was emitted in the production, transport and assembly of materials that make up a building or product.
Environmental product Declarations	EPD's	A declaration attached to a product expressing the calculated environmental impacts associated with its production (and sometimes also its use and end of life) using life-cycle analysis. Usually includes embodied carbon and may include other information such as impact on ozone or ocean acidification.
Form Factor	-	The ratio of a building's total thermal envelope surface area (the walls, roof and ground floor) to its treated (heated) floor area. The smaller the form factor, the more efficient the shape of the building and the less surface area from which heat can escape.
Fossil Fuels	-	Non-renewable, carbon-based, carbon-emitting fuel sources.
Fuel Poverty	-	Households that cannot meet their energy needs at a reasonable cost.
Future Homes Standard	FHS	Central government proposed changes to Parts L and F of the national Building Regulations, anticipated to come into force in 2025.
Glazing Ratio	-	The proportional relationship between a building's opaque and glazed surfaces; i.e. a wall-to-window or roof-to-window comparison. Sometimes expressed as a ratio of glazed area to total <i>floor</i> area (for example in SAP, the notional dwelling has a <i>maximum</i> limit to the 'opening area' as a percentage of 'total floor area', while in SBEM the reference building has a <i>minimum</i> 'opening area' as a percentage of 'exposed wall area' and 'exposed roof area' which varies by building usage).
Gross Internal Area	GIA	Gross Internal Area. A measure of total floor space in a building.

Term	Term Acronym Used	Definition
Ground Source Heat Pump	GSHP	A form of low-carbon heat delivery in which in which a pump captures the latent heat from the ground and uses it to heat a building or the hot water used in that building. Considered partially renewable as the heat captured is 'ambient' environmental heat from the ground, and the heat pump delivers more heat energy than it uses in electrical energy. Can be fully renewable and zero carbon if run entirely on renewably generated electricity.
G-value	-	Amount of sunlight energy transmitted through (a window's or door's) glass.
Home Quality Mark	HQM	A voluntary quality certification system for dwellings, which includes some environmental criteria as well as criteria relating to the resident's experience of using the home. This system is devised and run by the BRE (see BRE in this glossary).
Infrared Thermographic Survey	-	A building heat study undertaken using thermal imaging cameras, which detect infrared light that is not visible to the human eye. Everything that has a temperature above absolute zero emits infrared light, and as a result it is possible to detect variations in the temperatures of different surfaces.
Low Energy Transformation Initiative	LETI	A voluntary network of over 1,000 energy-related built environment professionals working to improve practices in relation to design for energy efficiency and carbon reduction to make the built environment compatible with the UK's net zero carbon future. It has devised and released publications relating to net zero carbon buildings including definitions, targets and design guidance including for new and existing buildings, operational and embodied carbon.
Mechanical Ventilation and Heat Recovery	MVHR	A ventilation system which recovers heat from outgoing air, to warm up the fresh incoming air.
National Calculation Methodology	NCM	The methodology approved by the Secretary of State for calculating the energy performance of buildings.
Net zero carbon	NZC	Net zero refers to achieving a balance between the amount of greenhouse gas emissions produced and the amount removed from the atmosphere. For the purpose of the Warwick DPD and SPD, 'net zero carbon' refers to operational, regulated carbon.
Natural Environment Investment Readiness Fund	NEIRF	Supports the government's goals in the 25 year environment plan, green finance strategy and 10 point plan for a green industrial revolution. It aims to stimulate private investment and market-based mechanisms that improve and safeguard the domestic natural environment by helping projects get ready for investment.
Operational Carbon	-	Energy use and carbon emissions caused by the operation of a building. Operational carbon is almost entirely due to energy use, but can have other smaller causes, such as leaked refrigerant gases from air conditioning.

Term	Term Acronym Used	Definition
Part L	-	See 'Building Regulations Approved Document Part L'.
Passivhaus	-	A standard and certification for buildings that achieve an exemplary level of energy efficiency. Certified by the Passivhaus Trust. Several levels of certifications are available; the lowest level relates to only energy efficiency, while the higher levels also require renewable energy generation.
Passive House Planning Package	PHPP	A modelling methodology used to very accurately calculate/predict the total energy use of a building. This method is used as part of the process for undergoing Passivhaus certification (see above), but can also be used as a design tool in its own right without any involvement in the certification scheme.
Performance gap	-	There is significant evidence that suggests that buildings do not perform as well when they are completed as when was anticipated when they were being designed. The difference between anticipated and actual energy performance is known as the performance gap.
Photovoltaics	PV	A form of renewable, non-carbon-based electricity production which utilises sunlight as an energy source.
Publicly Available Specification 2035 & 2038	PAS 2035 / PAS 2038	A best practice standardised process for retrofitting dwellings for energy efficiency in the UK. It allows retrofits to be Trustmark certified, providing security and reducing risks for building owners.
Regulated Carbon	-	The share of those operational carbon emissions that are from an energy use that is regulated by Building Regulations, for example heating and hot systems, or fixed lighting circuits
Renewables	-	Renewable resources; usually energy.
Royal Institute of British Architects	RIBA	Professional association body for the architectural profession. Among its many and wide-ranging activities it has published a set of aspirational targets for buildings to aim for in energy efficiency, embodied carbon and water efficiency to ensure they are fit for the UK's net zero carbon future and also reduce the demands they place on the UK's water resources.
Royal Institute of Chartered Surveyors	RICS	Professional association body for the chartered surveyor profession. Among its many and wide-ranging activities it has published a methodology to account for the embodied carbon of buildings across their lifespan (the Whole Life Carbon Assessment) in a way that complies with the relevant British Standard, BS15978.
Simplified Building Energy Model	SBEM	The calculation method used to set and comply with energy- and carbon-related targets within Building Regulations Part L for non-domestic buildings.
Standard Assessment Procedure	SAP	The calculation method used to set and comply with energy- and carbon-related targets within Building Regulations Part L for domestic buildings.

Term	Term Acronym Used	Definition
Super Major Development	-	Proposals for development of ≥ 50 new dwellings and/or $\geq 5,000$ sqm non-domestic floor space
Supplementary Planning Document	SPD	A document (like this one) that provides additional guidance on how to comply with policies set by a DPD or other part of the local plan.
Target Emissions Rate	TER	A metric used in Building Regulations Part L (for both dwellings and non-domestic buildings) to express a limit which must not be exceeded by the predicted carbon emissions associated with the building's regulated energy uses. The TER is set by applying a certain minimum standard of fabric and services to an imaginary building of the same size, shape and use as the proposed building. This minimum standard of fabric and services is laid out in Approved Document Part L, and is updated every few years. Expressed in kg of carbon dioxide per square metre of floor space (kgCO_2/m^2).
Target Fabric Energy Efficiency	TFEE	A metric used in Building Regulations Part L to express a limit on a dwelling's demand for heating and cooling, determined only by the fabric of the dwelling, irrespective of the type or efficiency of the various building services such as heating system. Expressed in kWh/m^2 floor space / year.
Technical Memorandum 23	TM23	Best practice published by the Chartered Building Services Engineers in testing buildings for air leakage.
Unregulated carbon		The share of those operational carbon emissions that are from an energy use that is not regulated by Building Regulations, for example plug-in electrical appliances.
Woodland Carbon Code	WCC	The UK's voluntary carbon standard for woodland creation projects, which provides reassurance about the carbon savings that woodland projects may realistically achieve. This entails a high quality, robust voluntary carbon standard, a transparent UK Woodland Carbon Registry, a robust science to predict and monitor carbon sequestration, and an independent validation and verification of projects.
Warwick District Council	WDC	
Water Source Heat Pump	WSHP	A form of low-carbon- heat delivery system in which in which a pump captures the thermal energy from a water source and uses it to heat a building or for hot water use within the building. Considered partially renewable as the heat captured is 'ambient' environmental heat, and the heat pump uses less electrical energy than it delivers in heat energy. Can be fully renewable and zero carbon if the heat pump is run on entirely renewably generated electricity.
Waste Water Heat Recovery	WWHR	A form of secondary heat delivery in which heat from wastewater (e.g. used shower or bath water) is captured for reuse in the building, for example to pre-heat water entering a boiler/water tank in order to reduce demand on primary methods of heating water to a set temperature.
Warwickshire Environmental Services Trading Protocol	WESTP	A Warwickshire County Council protocol which details what nature-based solutions are available to compensate for development, and outlines the principles and rules for the creation, enhancement and maintenance of habitats by landowners in order to be traded as compensation units in carbon offsetting.
U-values		The rate of thermal transmittance measured in Building Regulations.

Annex



Annex: Energy Pro-Forma

Policy NZC1 states that:

New developments of one or more dwellings (C3 or C4 use class) and/or 1,000sqm or more of new non-residential floorspace, hotels (C1) or residential institutions (C2 use class) should achieve net zero operational regulated carbon emissions by implementing the energy hierarchy.

Part 1 of this Energy Pro-Forma must be completed for all applications as set out above to demonstrate compliance with policy requirements of NZC1, NZC2A-C and NZC3. Alternatively, if Passivhaus accreditation is being sought applicants will need to submit PHPP calculations to demonstrate compliance with NZC1.

For residential development please complete 1A, for non-domestic development please complete 1B.

For developments where repeated house typologies are being used, or where multiple non-domestic buildings are being proposed, the applicant can apply an aggregated average of carbon emissions across these typologies or building types. The tables below indicate where aggregated data should be input if being used, otherwise please complete each table according to the proposed dwelling(s) or building(s) being proposed.

A separate Energy Pro-Forma has been prepared for Existing Buildings (householder, extensions and conversions) to demonstrate compliance with NZC4. This is set out in Part 2.

Annex Part 1: New Build Development

Site Address			
Description of Development			
Type of application	Full	<input type="checkbox"/>	
	Outline	<input type="checkbox"/>	
	Reserved Matters	<input type="checkbox"/>	
	Section 73	<input type="checkbox"/>	
Dwellings	Number of dwellings	Use Class	Total gross internal floor area (sqm)
		<input type="checkbox"/>	C3
		<input type="checkbox"/>	C4
Aggregated developments (for schemes of 10+ dwellings where repeated house types are used)	House Typology	Number of dwellings per house type	Total gross internal floor area per house type (sqm)
	1:		
	2:		
	3:		
	4:		
	5:		
	6:		
	7:		
<i>Please add lines above if required</i>			
For residential dwellings please complete > Part 1A			

Annex Part 1: New Build Development

Number of non-domestic buildings including hotels and residential institution buildings	Number of buildings	Use Class		Gross internal floor area for development (sqm)	
		<input type="checkbox"/>	C1		
		<input type="checkbox"/>	C2 or C2a		
		<input type="checkbox"/>	B2		
		<input type="checkbox"/>	B8		
		<input type="checkbox"/>	E		
		<input type="checkbox"/>	F1		
		<input type="checkbox"/>	F2		
	Sui Generis (please specify):				

For non-domestic development please complete > Part 1B

To be completed for residential and non-residential developments:

Primary heating source	Electrical systems (including air source heating, ground source heating, thermal storage, heat recovery, direct electric heating)	<input type="checkbox"/>
	Biomass systems	<input type="checkbox"/>
	Fossil fuel systems (including gas and oil boilers)	<input type="checkbox"/>
Secondary heating source (if required)	Electrical systems (including air source heating, ground source heating, thermal storage, heat recovery, direct electric heating)	<input type="checkbox"/>
	Biomass systems	<input type="checkbox"/>
	Fossil fuel systems (including gas and oil boilers)	<input type="checkbox"/>
Heating split between primary and secondary heating source	Primary:	Secondary:
Will the development have a mains gas connection (existing or proposed)	Yes (existing)	<input type="checkbox"/>
	Yes (proposed)	<input type="checkbox"/>
	No	<input type="checkbox"/>

Part 1A – Residential Dwellings

NZC1: The overall % carbon emissions reduction against Building Regulations

Target Emission Rate*(TER) in kgCO ₂ /m ² /yr.	
Dwelling Emission Rate (DER) in kgCO ₂ /m ² /yr.	
Overall % Reduction in CO ₂ emissions	
	Version of SAP carbon factors used – confirming that the same carbon factors were used for the TER and DER given above:
Informative:	<p>*Based on the relevant version of Building Regulations Part L as outlined in policy NZC1.</p> <p>These figures should be obtained from calculations using SAP (the Standard Assessment Procedure for domestic buildings).</p> <p>Where multiple house types are proposed information should be presented for each house type – see section 3.23 to 3.29.</p>

Energy Hierarchy Stage 1

NZC2(A): % improvement of energy efficiency against Building Regulations

Target Fabric Energy Efficiency (TFEE) of notional building of Building Regulations Part L 2021.		
Dwelling Fabric Energy Efficiency (DFEE) after the proposed improvements have been applied.		
DFEE as a % improvement on TFEE (Target Fabric Energy Efficiency)		
Building fabric element:	Part L 2021 notional dwelling²⁸ (provided as baseline)	Proposed Specification
External walls (including semi-exposed walls)	U value 0.18 W/(m ² .K)	
Floors	U value 0.13 W/(m ² .K)	
Roofs	U value 0.11 W/(m ² .K)	
Doors* (*whether opaque or up to 60% glazed)	U value 1.0 W/(m ² .K)	

Continued on next page

²⁸ HM Government Department for Levelling Up, Housing and Communities and Ministry of Housing, Communities & Local Government (2023) Building Regulations Part L ("Conservation of Fuel and Power Approved Document L) 2021 edition incorporating 2023 amendments. https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1133079/Approved_Document_L_Conservation_of_fuel_and_power_Volume_1_Dwellings_2021_edition_incorporating_2023_amendments.pdf

Part 1A - Residential Dwellings

Building fabric element:	Part L 2021 notional dwelling ²⁸ (provided as baseline)	Proposed Specification
Windows and glazed doors (>60% glazed)	U value 1.2 W/(m ² .K)	
Roof windows** (*If vertical. If not vertical, see conversions in SAP Appendix R)	U value 1.2 W/(m ² .K)	
Rooflights** (*If horizontal. If not horizontal, see conversions in SAP Appendix R)	U value 1.7 W/(m ² .K)	
Air permeability (air tightness)	5 m ³ /(h·m ²) at 50	
Glazing ratio (% of total floor area, and area broken down by each façade direction)	North	
	East	
	South	
	West	
Informative:	<p>These calculations are to demonstrate how energy improvements have been applied in pursuit of NZC2(A). For residential dwellings a 10% improvement on the Part L 2021 Target for Fabric Energy Efficiency is sought. The accompanying Energy Statement should outline in detail the energy efficiency measures employed in the development.</p> <p>Where full compliance is demonstrated the Energy Statement should justify how energy efficiency measures have been incorporated to the greatest extent feasible and viable.</p> <p>See SPD Section 4 for further information.</p>	

Energy Hierarchy Stage 2

NZC2(B): kWh of energy generated onsite through zero or low carbon energy sources, and regulated carbon emissions reduction as a result of this.

Residential Target Emission Rate (TER) of the notional dwelling of Part L 2021	
Dwelling Emission Rate (DER) after NZC2(A) energy efficiency measures have been applied.	<i>Version of SAP version carbon factors used:</i>
DER after renewable and low carbon energy measures towards NZC2(B) have been applied, <i>subsequent to the improvement made by measures under NZC2(A).</i>	<i>Version of SAP version carbon factors used:</i>
Actual % improvement on TER as a result of renewable and low carbon energy measures	
Informative:	<p>These calculations are to demonstrate how zero or low carbon energy generation technologies have been applied in pursuit of achieving on-site net zero operational carbon (regulated energy).</p> <p>The accompanying Energy Statement should include an assessment of renewable and low carbon technologies and the specification of the technologies employed.</p> <p>Where on-site net zero regulated carbon is not demonstrated the Energy Statement should demonstrate and justify that zero or low carbon technologies have been provided to the greatest extent feasible and viable.</p> <p>See SPD Section 5 for further information.</p>

Energy Hierarchy Stage 3

NZC2(C): residual carbon emissions are offset

DER after all on site measures (NZC2A+B) have been applied in kgCO ₂ /m ² /yr.	
	For aggregated developments using repeated house types, the average across all residential development, weighted by amount of GIA created by different residential typologies and orientations:
Residual regulated carbon emissions per dwelling kgCO ₂ /yr	
	For aggregated developments using repeated house types, the total across all residential development: average DER x residential total GIA:
Converted to tonnesCO ₂ /yr.	
Total residual carbon emissions across 30 years tonnes CO ₂ /year X 30 years (Static offset)	
BEIS Carbon Value £ tonne CO ₂	
Total carbon emissions x BEIS carbon value	
Total Offset Figure for residential dwellings (Static offset)	£
<p>Dynamic Offset</p> <p>Option for total regulated carbon emissions over 30 years in tonnes CO₂</p> <p>To be used in all-electric proposal only. Applying BEIS projected grid carbon reductions.</p> <p>See SPD Section 6.</p> <p>Informative:</p>	<p>This calculates the total carbon offset amount by taking the residual amount of carbon emissions from the building over a 30 year period. Applicants can apply BEIS projected grid carbon reductions should they wish providing they indicate the source of these projections, and providing that this future grid carbon reduction is not applied to types of energy use to which the projections do not apply, e.g., fossil fuels.</p> <p>See SPD Section 6 for further information.</p> <p>If it is not considered viable to make the offsetting contribution in full or part please see Net Zero Carbon DPD Section 11 for Viability guidance.</p>

Part 1B – Non-domestic Buildings

NZC1: The overall % carbon emissions reduction against Building Regulations

Target Emission Rate*(TER) in kgCO ₂ /m ² /yr.	
Dwelling Emission Rate (DER) in kgCO ₂ /m ² /yr.	
Overall % Reduction in CO ₂ emissions	
	Version of SBEM carbon factors used – confirming that the same carbon factors were used for the TER and BER given above:
Informative:	<p>*Based on the relevant version of Building Regulations Part L as outlined in policy NZC1.</p> <p>These figures should be obtained from calculations using SBEM (the Simplified Building Energy Model for non-domestic buildings)</p>

Energy Hierarchy Stage 1

NZC2(A): % improvement of energy efficiency against Building Regulations

<p>TER of notional building using Part L 2013 specification</p>	<p><i>Version of SBEM carbon factors used:</i></p>
<p><i>Optional:</i> TER of notional building using Part L 2021 specification, and version of SBEM carbon factors used</p>	<p><i>Version of SBEM carbon factors used:</i></p>
<p>BER after all energy efficiency improvements (including fabric) have been applied. Excluding any renewable/low carbon energy measures</p>	<p><i>Version of SBEM carbon factors used:</i></p>
<p>BER after all energy efficiency improvements (including fabric) have been applied. Excluding any renewable/low carbon energy measures</p>	<p><i>Version of SBEM carbon factors used:</i></p>
<p>BER % improvement on TER as a result of energy efficiency improvements Exclude any renewable energy measures.</p>	

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Part 1B – Non-domestic Buildings

Building Specification	Notional Spec (baseline)	Proposed Specification
External walls (inc. semi exposed walls)		
Floors		
Roofs		
Doors (opaque or semi glazed)		
Windows and glazed doors		
Rood windows		
Rooflights		
Efficiencies of building services		
Air permeability (air tightness)		
Glazing ratio (% of total floor area, and area broken down by each façade direction)	North	
	East	
	South	
	West	
<i>Optional: Building Primary Energy Rate as a % improvement on Part L Target Primary Energy Rate.</i>		
Informative:	<p>These calculations are to demonstrate how energy improvements have been applied in pursuit of NZC2(A). For non-residential buildings a 19% reduction in carbon emissions compared to Part L 2013 is sought through energy efficiency measures.</p> <p>The accompanying Energy Statement should outline in detail the energy efficiency measures employed in the development.</p> <p>Where full compliance is not demonstrated the Energy Statement should demonstrate how energy efficiency measures have been incorporated to the greatest extent feasible or viable.</p> <p>See SPD Section 4 for further information.</p>	

Energy Hierarchy Stage 2

NZC2(B): kWh of energy generated onsite through zero or low carbon energy sources, and regulated carbon emissions reduction as a result of this

Building Emission Rate (BER) after NZC2(A) energy efficiency measures have been applied.	
Building Emission Rate (BER) after renewable and low carbon energy measures towards NZC2(B) have been applied, <i>subsequent to the improvement made by measures under NZC2(A)</i> .	<i>Version of SBEM carbon factors used:</i>
Actual % improvement on non-residential TER as a result of renewable and low carbon energy measures	
Informative:	<p>These calculations are to demonstrate how zero or low carbon energy generation technologies have been applied in pursuit of achieving on-site net zero operational carbon (regulated energy).</p> <p>The accompanying Energy Statement should include an assessment of renewable and low carbon technologies and the specification of the technologies employed.</p> <p>Where on-site net zero regulated carbon is not demonstrated the Energy Statement should demonstrate and justify that zero or low carbon technologies have been provided to the greatest extent feasible and viable.</p> <p>See SPD Section 5 for further information.</p>

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Energy Hierarchy Stage 3

NZC2(C): residual carbon emissions are offset

BER after all on site measures (NZC2A+B) have been applied in kgCO ₂ /m ² /yr.	
	For aggregated development, the average amount of GIA proposed per non-residential building typology or use:
Residual regulated carbon emissions per building kgCO ₂ /yr	
	For aggregated development, the average BER x the total non-residential GIA:
Converted to tonnes CO ₂ /yr.	
Total residual carbon emissions across 30 years tonnes CO ₂ /year X 30 years (Static offset)	
BEIS Carbon Value £ tonne CO ₂	
Total carbon emissions x BEIS carbon value	
Total Offset Figure (static offset)	£
Dynamic Offset Option for total regulated carbon emissions over 30 years in tonnes CO ₂ To be used in all-electric proposal only. Applying BEIS projected grid carbon reductions. See SPD Section 6.	
Informative:	<p>This calculates the total carbon offset amount by taking the residual amount of carbon emissions from the building over a 30 year period. Applicants can apply BEIS projected grid carbon reductions should they wish providing they indicate the source of these projections, and providing this future grid carbon reduction is not applied to types of energy use to which the projections do not apply e.g., fossil fuels.</p> <p>See SPD Section 6 for further information.</p> <p>If it is not considered viable to make the offsetting contribution in full or part please see Net Zero Carbon DPD Section 11 for Viability guidance.</p>

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Annex Part 2: Existing Buildings

Site Address		
Description of Development		
Type of application	Full	<input type="checkbox"/>
	Section 73	<input type="checkbox"/>
	Householder	<input type="checkbox"/>
	Listed Building Consent	<input type="checkbox"/>
Existing primary heating source	Electrical systems <i>(including air source heating, ground source heating, thermal storage, heat recovery, direct electric heating)</i>	<input type="checkbox"/>
	Biomass systems	<input type="checkbox"/>
	Fossil fuel systems (including gas and oil boilers)	<input type="checkbox"/>
Heating split between primary and secondary heating source	Primary:	Secondary:
Proposed primary heating source	Electrical systems <i>(including air source heating, ground source heating, thermal storage, heat recovery, direct electric heating)</i>	<input type="checkbox"/>
	Biomass systems	<input type="checkbox"/>
	Fossil fuel systems (including gas and oil boilers)	<input type="checkbox"/>

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Existing secondary heating source (if present)	Electrical systems <i>(including air source heating, ground source heating, thermal storage, heat recovery, direct electric heating)</i>	<input type="checkbox"/>
	Biomass systems	<input type="checkbox"/>
	Fossil fuel systems <i>(including gas and oil boilers)</i>	<input type="checkbox"/>
Heating split between primary and secondary heating source	Primary:	Secondary:
Will the development have a mains gas connection (existing or proposed)	Yes (existing)	<input type="checkbox"/>
	Yes (proposed)	<input type="checkbox"/>
	No	<input type="checkbox"/>
Does the development reach any targeted space heat demand as recommended under 16.28 of the SPD?	Yes Please provide details:	<input type="checkbox"/>
	No	<input type="checkbox"/>

Consultation Statement: Net Zero Carbon Supplementary Planning Document (SPD)

May 2024

Introduction

1. The Net Zero Carbon SPD was subject to a statutory public consultation between 18th October 2023 - 29th November 2023. This statement details the consultation on this document and lists the responses received during the consultation.
2. This statement has been prepared in accordance with regulation 12(a) of the Town and Country Planning (Local Planning) (England) Regulations 2012.

Background to the Supplementary Planning Document (SPD)

3. The SPD provides detailed guidance on the policies and requirements set out in the Net Zero Carbon Development Plan Document that been subject to public examination and various rounds of public consultation. The need for the SPD was identified in the Cabinet report dated 10th August 2022.
4. The details of the DPD can be found at [Warwick Net Zero Carbon DPD Examination - Net zero carbon development plan document - Warwick District Council \(warwickdc.gov.uk\)](https://www.warwickdc.gov.uk/consultation/net-zero-carbon-dpd-examination).
5. The scope of the SPD was agreed and shared with the Inspector during the examination of the DPD.

Public consultation on the draft SPD

6. The Council published the Net Zero Carbon SPD for six weeks public consultation from between 18th October 2023 - 29th November 2023 as per the requirements set out in the [Council's Statement of Community Involvement \(SCI\)](#).
7. Notification of this consultation was sent to everyone who had signed up to the Council's Local Plan email updates and individuals and organisations on the Local Plan consultation database. This included statutory consultees, residents and developers.

8. The documents were available online via links on the Council webpage. Paper copies were also available to view at Leamington Town Hall, Warwick District Council Offices at that time which were at Riverside House in Leamington, Brunswick Healthy Living Centre and the main libraries including Kenilworth, Leamington Spa, Warwick, Lillington and Whitnash.

9. The Council encouraged people to respond electronically using the consultation portal [Warwick District Council - Net Zero Carbon Supplementary Planning Document \(oc2.uk\)](#). Representations were also accepted via email and by letter.

Responses to the Net Zero Carbon SPD

10. A total of 26 responses were received from a range of stakeholders including agents, house builders, individuals and statutory bodies. The breakdown of the responses is as follows:

- 8 Individuals
- 5 Statutory Bodies: Coal Authority, Environment Agency Historic England, and the National Highways and South Warwickshire University NHS Foundation Trust
- 5 Parish/Town Council's - Burton Green Parish Council, Bishop's Itchington Parish Council, Kenilworth Town Council, Royal Leamington Spa Town Council and Warwick Town Council.
- Warwickshire County Council
- Nuneaton and Bedworth Borough Council
- 4 planning agents representing various landowner's/home builders namely: Elanor Wright (Oxalis Planning) - on behalf of Pristine Holdings ,Jacob Bonehill - on behalf of Taylor Wimpey, , Michael Burrow (Savills) - on behalf of Crest Nicholson Partnerships and Strategic Land and Barratt David Wilson Homes (Mercia), Paul White - Representation on behalf of Hill Residential Development Ltd in respect of their land interests within the Warwick DC
- 1 planning agent- Emma Rawson - Planning Prospectus

Table 1: Brief summary of comment by organisation type

Organisation Type	Comments
Individuals	Mainly general comments apart from one response that has undertaken a detailed examination of the SPD.
Statutory bodies	Mostly positive comments, with some minor suggestions and signposts to some other internal and national documents.
Parish and Town Councils	Supportive of the additional guidance provided by the SPD.

Warwickshire County Council	Mostly positive comments with some general observations.
Nuneaton and Bedworth Borough Council	No comments.
Planning agents representing landowner's/housebuilders	There was mix of some technical and general queries. Some additional suggestions were made to the SPD content.
Planning Agent	There were few issues were raised for various Net Zero carbon DPD policies.
South Warwickshire University NHS Foundation Trust	Some queries about biodiversity issues, air and combined heat and power heat pumps. Some issues around air quality and Council's carbon offsetting scheme were raised.

Changes to the SPD

11. Please find the attached appendix to this report detailing the changes proposed to the SPD following this consultation. This report outlines where a response has resulted in a change.

12. The Final SPD will be published on the Council's website after Cabinet approval.

Summary of Responses to the Net Zero Carbon SPD Consultation

Respondent Name (Organisation)	SPD Para Number	Representation	Council Response
Steve Russell (Individual)	Whole document	I'd rather see money spent on affordable accommodation for the young people that don't afford to be able to fund the increased costs associated with such initiatives. Do for me I don't support this policy.	Comments noted. This issue is not relevant to the SPD.
Graham Ball (Individual)	Whole document	<p>The document refers to achieving net zero development, which sounded great. However, reading in more detail, what the document actually requires has nothing to do with net zero emissions from development (i.e. from the construction of buildings). Instead, the document only asks for net zero emissions during the "operational" (use) phase of the building.</p> <p>To have a headline that talks about net zero development implies the policy will reasonably result in net zero development. But this claim is unreasonable because the policy does not stop new development emissions during the construction phase. Therefore, if you publish this document, I think you are committing fraud by false representation, which is illegal.</p> <p>To ensure you remain compliant with the law, please could you rename the document "Reducing carbon emissions for new developments", or similar, and use this phrase throughout the document instead? This phrase is a fairer reflection of what the policy seeks to do.</p>	<p>The matter of the title, objectives, and purpose of the NZC DPD was raised during examination. It was agreed that the DPD does make it clear that it only relates to regulated operational energy as set out below.</p> <p>Paragraph 4.1.1 of the DPD states <i>"For the purposes of this DPD net zero carbon relates to regulated operational energy, which results from fixed building services and fittings (space heating, cooling, hot water, ventilation and lighting)."</i></p> <p>This is reiterated in paragraph 1.3 of the SPD where it clearly</p>

		<p>Reducing carbon emissions is still an achievement that the council should be proud of. If you had a child who won a race at school, you wouldn't claim your child was Usain Bolt, instead you would be proud of and talk about what your child actually achieved.</p> <p>I am aware that achieving net zero in construction is not easy to do or to measure. So alternatively, if you want to use the "Net zero development" claim, then for that claim to still be reasonable, you could stop new building in the district. This solution would be simple and sustainable.</p>	states that the DPD aims to ensure that new development is net zero carbon in operation.
Liz Rochford	Whole document	<p>I hope you can help me understand how the disruption to the Birmingham Road for 11 months and probably longer will not affect the carbon output when cars are idling, this is totally at odds with any carbon reduction plans.</p> <p>Why can't the Warwick DC be joined up and ensure that if we really want a Net Zero we have to stop adding to the problem.</p>	Comments noted but this issue is beyond the remits of this SPD.
Jacqui Padbury (Nuneaton and Bedworth Council)	Whole document	No Comments.	Noted.
Steven Barnett (Individual)	Whole document	I do not agree with net zero fraud, please add a no from me a rejection for planning.	Comments noted.
Nadia Lycett	Whole document	There didn't seem to be any mention of increased fire risks . With battery storage and the push for most things electric how will fire risks be mitigated?	The SPD is not putting forward any new policies and is simply providing more guidance on the policies set out in the DPD. We do not consider that fire risk is a planning matter as it is

			covered by other building regulations.
	Whole Document	How many of the green technologies are easily available and affordable?? What if the UK doesn't have the resources/manpower to deliver these?	The feasibility and viability of employing zero or low carbon energy sources was considered during the examination of the NZC DPD. The issues of availability and affordability of such technologies has therefore already been considered in the formation of the NZC DPD policies.
	Whole document	How often will the policy be reviewed and updated? We don't know what we don't know. These are new technologies and there will be unintended consequences from the proposed activities.	The SPD is only providing guidance on the policies contained within the NZC DPD. The DPD can be reviewed at regular intervals if the Council considers that there is a need to review the DPD considering new guidance.
	Whole document	As an example, with more electric cars on our roads their weight is ploughing up the road infrastructure. They are liable to fires and the costs of running one (including insurance premiums) have increased significantly.	These issues are beyond the scope of this SPD.
Trudi Wheat		The idea of south facing properties seems sensible ...my point is that tenants and owners need to be educated in how to keep the building cool. We need to study how Mediterranean countries adapt . For example having the properties painted white to protect from the sun. With the summer	Comments noted, We agree that behaviour change can support the transition to net zero and manage the way in which people occupy

		temperatures getting hotter, shutters, drawn curtains, keeping windows closed so hot air doesn't get into the building will be needed. Looking around towns in Warwickshire in recent hot spells this isn't happening. It is easier to go and buy an air conditioning system.	buildings. Paragraph 3.31 of the SPD outlines that by way of conditions associated with planning permission, a developer would need to produce a home user guide for occupants.
		The siting of ASHP was mentioned in relation to noise and visual concerns. It also needs to be mentioned about the Cold air outflow. This could be a problem if it is continually flowing against another external wall. By reducing the heat in the external wall you are lowering the internal temperature.	Comments noted.
		The way technology is progressing at the moment I think it is important not to consider hybrid gas hydrogen boilers in existing housing stock. We now have hydrogen buses and JCB's. At this stage of development all options should be considered.	Hydrogen boilers are not being considered due to lack of credible evidence to support this technology and amount of electricity that is required to produce hydrogen energy.
		Biomass/ wood burning stoves. Do WCC or WDC still enforce the no smoke or clean air zones? Once winter comes the number of wood burning stove polluting the air is noticeable. Why continue with these high building conditions if the present laws are not being enforced?	Comments noted. Warwick District Air Quality Management Area (AQMA) has set limit for annual and hourly nitrogen dioxide limits.
Adrian Chadha (Highways Agency)		National Highways has been appointed by the Secretary of State for Transport as strategic highway company under the provisions of the Infrastructure Act 2015 and is the highway authority, traffic authority and street authority for the strategic road network (SRN). The SRN is a critical national asset and as such National Highways works to ensure that it	Comments noted.

		<p>operates and is managed in the public interest, both in respect of current activities and needs as well as in providing effective stewardship of its long-term operation and integrity. National Highways are committed to reduce the environmental impact of our network to complement our ambition for Net Zero Carbon and we welcome policies focused on reducing carbon from development, and reaching net zero.</p> <p>The Climate Change Committee’s 2022 Report to Parliament notes that for the UK to achieve net zero carbon status by 2050, action is needed to support a modal shift away from car travel. The NPPF supports this position, with paragraphs 73 and 105 prescribing that significant development should offer a genuine choice of transport modes, while paragraphs 104 and 110 advise that appropriate opportunities to promote walking, cycling and public transport should be taken up. Moreover, the build clever and build efficiently criteria as set out in clause 6.1.4 of PAS2080 promote the use of low carbon materials and products, innovative design solutions and construction methods to minimise resource consumption. These considerations should be weighed alongside any relevant Local Plan policies to ensure that planning decisions are in line with the necessary transition to net zero carbon. National Highways have undertaken a review of the Draft Net Zero Carbon Supplementary Planning Document and raise no objections.</p> <p>Further information on our Net Zero Plan can be found here https://nationalhighways.co.uk/netzerohighways/</p>	
Eleanor Jeffery (Historic England)		Historic England was previously consulted on the Warwick District Council Net Zero Carbon DPD Main Modifications Draft in July 2023, the Warwick District Council Net Zero Carbon DPD Consultation Draft and on the SA/SEA/HRA	Comments noted.

		<p>Screening and Scoping Report for the DPD in 2021. Our comments in relation to these consultations are attached for your reference.</p> <p>We understand that the purpose of this SPD is to assist applicants in implementing the policies of the NZC DPD by providing technical guidance to inform the design of developments, and to illustrate what measures applicants need to consider in the preparation of an Energy Statement.</p> <p>Whilst the purpose of an SPD also is to provide guidance on the application of adopted policy, it is important to ensure that the implication of this important policy document does not adversely affect or undermine the historic, physical and social value of the historic environment.</p> <p>Historic England is pleased to note the continued inclusion of Policy NZC4 from the Main Modifications of the NZC DPD, particularly clauses 8.26 and 8.27 on the sensitive retrofitting of energy efficiency measures and appropriate use of micro-renewables in historic buildings.</p> <p>We also note the inclusion of Policy NZC3 on Embodied Carbon in the SPD and the detailed requirement for whole-life assessment of materials on developments above certain thresholds.</p> <p>Historic England recognises the urgent need for positive action in response to the climate crisis and is committed to achieving net zero carbon emissions. Therefore, Historic England is fully supportive of Warwick District Council's commitment to becoming a net zero organisation by 2025.</p>	
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		<p>Please follow the link below for Historic England’s response to the climate, energy and biodiversity crisis: https://historicengland.org.uk/advice/climate-change/our-strategy/</p>	
	<p>Section Five: Policy NZC2(B) – Zero or Low Carbon Energy Sources Table 13/14: Solar photovoltaic panels/Solar thermal:</p>	<p>Historic England notes the comments on potential heritage or conservation designations that may affect the implementation of these energy sources. We note that in relation to wind power, the SPD stipulates that “<i>historic environment and heritage views will need to be considered</i>”, however these are not included as considerations for solar photovoltaic panels or solar thermal power, and we suggest that the document is amended to make it consistent for all sources of energy.</p> <p>Although often of a lower and shorter scale than onshore or offshore wind farms, solar panels still have a significant impact on the landscape, and therefore may have a knock-on impact to the views and experience of heritage assets. For solar photovoltaic and solar thermal panels to be efficient they must be placed in an area with high exposure to sunlight, meaning that these features are likely to be highly visible in the landscape, and may be in open spaces that may provide key or protected views to and from assets.</p> <p>Considering the historic environment when implementing solar photovoltaic and solar thermal panels will ensure that the views and setting of heritage assets is preserved, alongside the assets themselves.</p>	<p>Comments noted. Table 13 and 14 both state ‘heritage and conservation designations must be considered’ but we can appreciate this is read in the context of building mounted PV or solar heating.</p> <p>Please see proposed modifications.</p>
	<p>Section Eight: Policy NCZ4 – Existing Buildings:</p>	<p>Historic England welcomes the inclusion of subsections 8.26 and 8.27, pertaining directly to heritage assets and the historic environment. However, we note that it is positioned</p>	<p>Comments noted.</p>

		<p>as an alternative form of development, rather than as a preferred and more effective solution to achieving net zero. Recent high-profile planning decisions have indicated that the embodied carbon of heritage buildings is becoming a key focus for planning policy, and the preservation and retention of historic fabric is preferred to demolition. Considering this, Historic England consider that the SPD should reflect this preference, and specifically reflect on the positive contributions to net zero that retrofitting and redevelopment can have.</p> <p>The SPD states that the Council “<i>will apply significant weight to proposals that deliver energy and carbon savings in existing buildings</i>” and that “[it] <i>recognises the significant opportunity to reduce the district’s carbon burden by retrofitting existing building stock</i>”. However, no connection has been made between embodied carbon in heritage buildings, and how these can be part of a solution to meeting net zero targets. Historic buildings represent an investment of embodied carbon and other resources and demolishing and replacing them requires a significant reinvestment of both energy and the resources required. Retrofitting and restoring existing building stock has a much lower carbon output and will also contribute to lower carbon emissions over the course of the building’s lifespan.</p> <p>In addition to the advice above, policy CP1 in Bath and Northeast Somerset’s adopted Districtwide composite plan, dated January 2023, is a good example of how the priority to retrofitting existing buildings could be included in a policy. The link below is to the composite plan:</p>	<p>The Council consider that embodied carbon in all existing buildings is valuable, not solely in historic buildings.</p> <p>Please see proposed modifications.</p>
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		https://beta.bathnes.gov.uk/policy-and-documents-library/development-plan-core-strategy-placemaking-plan-and-local-plan-partial	
		<p>Historic England would be happy to provide further comments as the Net Zero Carbon SPD is progressed over the coming months. We would like to stress that the above opinion is based on the information provided by the Council in its consultation. To avoid any doubt, this does not affect our obligation to provide further advice and, potentially, object to specific proposals, which may subsequently arise (either as a result of this consultation, or in later versions of the plan/guidance) where we consider that these would have an adverse impact upon the historic environment.</p>	
Katherine Geddes (Warwick Town Council)	Whole document	<p>This is very detailed, technical and comprehensive guidance supporting the Net Zero Carbon DPD, including useful timescales, clear targets and achievable expectations. The glossary of terms is particularly helpful and our members are glad to see robust reference to development viability, specific carbon offsetting requirements, retrofitting and historic building inclusion. This reference document would be very welcome should it be adopted when the Town Council Plans Committee discusses relevant planning applications in future</p>	Positive comments noted.
Kay Sheriston (Royal Leamington Spa Town Council)	Whole document	<p>The Planning Meeting of the Leamington Spa Town Council has reviewed and considered the Draft Net Zero Carbon SPD (Oct 23) and have no comments to make.</p>	Comments noted
Emma Rawson (Planningprospectus PPL)	Validation Checklist	<p>We consider that the Embodied Carbon Assessment should be conditioned rather than a validation requirement.</p>	<p>This needs to be a validation requirement as it is one of the requirements of Policy NZC3.</p>

<p>Emma Rawson (Planningprospectus PPL)</p>	<p>Policy NZC1: Achieving Net Zero Carbon Development</p>	<p>We consider that the policy aligns with the baseline regulations as set out in part L of the building regulations. We are supportive of the policy and associated energy hierarchy (as set out in figure 1).</p> <p>Point 3.13 states “The required minimum on-site reduction is a 35% reduction in regulated carbon emissions compared to the baseline compliant development under Part L 2013”.</p> <p>Whilst we are supportive of the need to reduce carbon emissions in non-domestic premises and footnote 6 indicates that the reduction is ambiguous. We consider that the level of reduction required might be too high and prevent employment development from coming forward in alignment with the Local Plan. It is considered that more robust reasoning and justification for the 35% figure is required. It is noted that footnote 6 refers to it being required in the latest London Plan. There needs to be a recognition that there are notable differences between London and Warwick. The approach cannot be to reflect the London approach onto Warwick.</p>	<p>We note the comments and support for policies included in the NZC DPD. However, this consultation is seeking views on the NZC SPD. The NZC DPD has been subject to two rounds of statutory consultation, and the Council has undertaken a main modifications consultation as part of the examination</p>
<p>Emma Rawson (Planningprospectus PPL)</p>	<p>Policy NZC2(A): Making buildings energy efficient</p>	<p>No comments to make.</p>	<p>Noted</p>
<p>Emma Rawson (Planningprospectus PPL)</p>	<p>Policy NZC2(B): Zero or Low Carbon Energy Sources and Zero Carbon Ready Technology</p>	<p>We support the concept that proposals must demonstrate that carbon reductions to the greatest extent feasible have been pursued. We also support the use of an Energy Statement to present this.</p> <p>More clarification and justification as to the appropriateness and achievability of the 35% figure would be useful.</p>	<p>Please note comments above.</p>

Emma Rawson (Planningprospectus PPL)	Policy NZC2(C): Carbon Offsetting	The flexibility of allowing for applicants to either contribute toward the offset fund or provide carbon offsets directly is welcomed.	Noted
Emma Rawson (Planningprospectus PPL)	Policy NZC3: Embodied Carbon	It would be preferable for the Embodied Carbon Assessment to be conditioned and discharged accordingly to avoid delays for the full submission of development for employment applications.	Please note comments above.
Emma Rawson (Planningprospectus PPL)	Policy NZC4: Existing Buildings	The information provided is useful. No further comments.	Noted
George Martin	Introduction	Needs to have a clear understanding of exactly what a 63% reduction in regulated carbon emissions compared to a baseline of Part L of Building Regulations 2021. What is this in terms of net zero be 2030 and 2050.	Comments noted.
George Martin	Para 1.2	Note that 'Net Zero Carbon' DPD is incorrectly named and misleading. If this definition is approved (found sound) what will the new definition be for truly net zero regulated and unregulated carbon? It is wrong and misleading to refer to NZC throughout the document. At the very least it should be NCRC – R for Regulated.	Comments noted; however, this consultation is not for the NZC-DPD but is seeking comments on NZC-SPD.
George Martin	Para 1.3	The NZC DPD will not as stated quote “the DPD will aim to ensure new development should be net zero carbon in operation”. This paragraph does go on to say that the DPD net zero carbon relates to operational energy..... While this is correct it does not state that unregulated energy is not included.	Paragraph 4.1.1 of the DPD states <i>“For the purposes of this DPD net zero carbon relates to regulated operational energy, which results from fixed building services and fittings (space heating, cooling, hot water, ventilation and lighting).”</i> We do not feel this paragraph is

			unclear to the scope of the DPD's policies. This is reiterated in paragraph 1.3 of the SPD.
George Martin	Para 1.4	Will the District's carbon deficit be minimised? On the basis that design is based on SAP what is the estimated 'performance gap'? What is the estimated cost of retrofit of these homes to get to truly net zero carbon.	Comments noted.
George Martin	Para 2.1- Validation Checklist	Who is going to assess compliance with the DPD policies?	In line with the DPD's adoption, the Council is investing resources in training existing officers and members, and recruitment of specialists who can assess material submitted with planning applications.
George Martin	Para 2.1- Energy Statement	The statement must stat what method of assessment is being used – SAP, SBEM, PHPP etc The statement should assess what measures are in place to reduce the 'performance gap'.	The energy pro-forma is sufficiently detailed to demonstrate what information is to be submitted. The performance gap is covered in paragraphs 3.28 - 3.32, this is a post construction test and such would not be submitted before planning permissions is issued.
George Martin	Para 2.1- Embodied Carbon Assessment.	Define 'major development'. Reduced quote 'where possible' – remove this.	The DPD defines major development as set out in The Town and Country Planning

			(Development Management Procedure) (England) Order 2015 (as amended).
George Martin	Policy NZC1- Bullet point 1	SAP 10.2 is stated. This is a mistake – SAP 11 (probably to be renamed) will be part of the new building regs hopefully in 2025. State therefore the current version of SAP.	These comments relate to NZC DPD policy which is not subject of this consultation.
George Martin	Policy NZC1-bullet point ii	Non-Residential Buildings – 35% reduction in relation to the 2013 Building Regulations or equivalent for the 2021 regulations. I do not understand this – surely take out the 2013 reference and add in an appropriate reduction in relation to the 2021 regs.	As above
George Martin	Policy NZC1-bullet point iv	Who is going to assess if offsetting is unviable? Need to appreciate that SAP and SBEM prior to occupation will only show compliance with a design standard and NOT operational in use!!! Good that Passivhaus will satisfy the DPD and that this will be certified. Developers should be encouraged to adopt Passivhaus and the use of PHPP. What can WDC do to encourage this? A fast-track process through planning?	As above
George Martin	Table 1- Residential	The Future Homes Standard has not come to consultation, so it is Wrong to state that this is “Equivalent to the carbon reduction anticipated to be achieved by the Future Homes Standard”. This cannot be decided until the FHS has been publicised and the Future Homes Hub (basically the major Developers) continually want to dumb this down.	The Government started a consultation on the Future Homes Standard in December 2023. The Council consider the carbon reduction anticipated by the Future Homes Standard remains equivalent to the minimum on-site improvement on baseline required by Policy NZC1.

George Martin	Table 1- General	<p>Are those developing this SPG document fully aware of the proposals made by the Future Homes Hub and the contents of their 'Contender Specifications'? (CS1 to CS5)</p> <p>Is a 63% reduction what WDC think can be achieved with a heat pump? This probably equates to CS1 in the Future Homes Hub (FHH) report. I would reasonably argue that the document should instead ask for CS2 in the FHH report i.e. including a heat pump & PVs – I would also reasonably argue that the Future Homes Standard hasn't been set yet, but that major housebuilders seem to be arguing for CS1 and environmental bodies arguing for CS3 or above, so CS2 looks like it might be a reasonable compromise. If the SPG is just defaulting to CS1, then the aim is too low</p>	<p>New development in the district would be expected to meet the requirements of the NZC policies and building regulations applicable to development at the time. This may result in a situation where the DPD's policies are superseded and such development will be built to a higher standard to comply with Building Regulations, or in the event that building regulations have a lower standard, the DPD's policies will require that buildings meet a higher standard and reduce carbon emissions against the baseline of current building regulations.</p>
George Martin	Table 1- Non domestic	<p>Why is there a reference to the 2013 regulations. The buildings other than dwellings Part L is currently 2021 edition incorporating the 2023 amendments.</p> <p>I can see no technical reason why the reference is not to the non-domestic current 2021 Part L. It would appear to me that this has been worded as the previous GLA policy. In the meantime, the GLA has now updated its advice supporting its policy to now apply the policy improvement (35%) to the new 2021 regs for non-dom.</p>	<p>The reference to 2013 is within the parent policy NZC1 in the DPD and something the SPD cannot change.</p>

		<p>A comment on GLA Policy: It should be noted that the GLA have now gone further, lifting their previous 35% improvement to 50% beyond the new 2021 regulations. The GLA has evidence of submitted schemes that already achieve their policy levels. This is useful to note if there is a challenge from any Planning Inspector.</p>	
George Martin	General	<p>With Passivhaus deemed to satisfy, WDC will need to ensure that they have the Passivhaus skills to assess these designs. In addition and vitally important, whoever is doing the Building Control will need to be appropriately trained to assess Passivhaus certification.</p>	<p>This goes beyond the remit of this document as the SPD is not the place to consider training needs.</p>
George Martin	General	<p>Under the section ALL.....who is going to assess the 'where it is not possible'? Developers are going to fight this BIG time. The easiest route for a developer is to make a contribution to carbon offsetting.</p> <p>Under the heading of 'Further Information' add a sentence- It is unlikely that offsetting off site will be appropriate for low rise housing developments</p>	<p>As above. In line with the DPD's adoption, the Council is investing resources in training existing officers and members, and recruitment of specialists who can assess material submitted with planning applications.</p>
George Martin	Para 3.5	<p>Needs to have a clear understanding of exactly what a 63% reduction in regulated carbon emissions compared to a baseline of Part L of Building Regulations 2021 means in terms of net zero by 2030 and 2050.</p> <p>This is why there is lobbying for Energy Use intensity (EUI) targets in kWh/m2/yr instead of % reductions which to many are meaningless. kWh/m2/yr targets can also be measured 'in use' unlike % reductions. It's just bonkers.</p>	<p>Comments noted</p>
George Martin	Para 3.6	<p>The SPD should not be promoting gas boilers.</p>	<p>The SPD is not promoting gas boilers, paragraph 3.12</p>

			identifies this. Paragraph 3.6 is simply making reference to a gas boiler in a notional building.
George Martin	Para 3.7	63% for 2013 and 75% for 2021 sounds good.....but in reality, it is not.	Comment noted.
George Martin	Para 3.8	Anticipated' is just not good enough and should not be allowed.	Comment noted.
George Martin	Para 3.9	It is correct to say that the FHS will have a Heat Pump as the primary source.....so why are WDC going to allow a gas boiler? Also need to ensure that there is not gas for cooking.	The SPD or WDC are not promoting gas boilers. In fact, Para 3.9 second bullet point encourages heat pump to be used a primary heat source.
George Martin	Para 3.10	What does this mean. Weasel words for Developers to opt out. The SPD needs to be unambiguous. Why does the DPD not require new homes to be built as a minimum to the FHS	The DPD does encourage new builds to be built to the FHS but also recognises that in some case it may not be possible due to viability/locational issues. The policy, and paragraph 3.10 of the SPD identifies that there are other compensatory improvements to achieve the required DER
George Martin	Para 3.11	Well, that is some case study – absolutely meaningless. The buildings are designed to meet a 77% reduction on the 2013 building regulations but what in relation to the 2021 regulations. Also, and importantly what about the operational performance. Was there any evaluation carried out (POE) and what did it show? Good that ASHPs were used and solar panels though.	This case study has been included to demonstrate that development which complies with NZC1 is feasible and viable. It includes reference to the % reduction against both 2013 and 2021 Building Regulations.

George Martin	Para 3.12	WOW – Proposals with gas boilers will not be considered as acceptable. Excellent. So why does Table 1 use a baseline with a gas boiler.	Table 1 is citing gas boiler as an example of being in a notional building. It is not encouraging gas boilers.
George Martin	Case study	<p>The Case Study in just 4 paragraphs states quote:</p> <p>“ New homes are being constructed by Vistry partnership to meet a highly energy efficient specification with air source heat pumps, cavity walls and PV solar panels delivering a 77 - 80% reduction in carbon emissions.”</p> <p>What it should say is that it is designed to deliver.....but where is the in use information to find out what exactly was delivered. What was the complete specification? What Air Tightness was designed and what was achieved ?.....so many questions NOT answered by the case study.</p> <p>Reference is made in the ‘green box’ to a link on the Developers web page:</p> <p>The ‘Sustainability in Action’ document correctly states all the design factors included in the development and states “ The project included ambitious reductions in all possible areas, looking to reduce embodied carbon and aiming for a 100% reduction in regulated energy use and carbon emissions”. This is what the development set out to do at the design stage but what did it achieve in reality? Where is this information?</p> <p>The ‘green box’ also has a link to the Developer’s case study.</p> <p>Case study by Darren Evans “Housing development shows how to achieve net zero carbon in construction today”</p>	<p>Comments noted.</p> <p>Please see proposed modifications to clarify that the homes were designed to achieve a 100% reduction in carbon emissions compared to the target set by Part L 2013</p>

		<p>Results: “100% reduction in regulated carbon against Part L 2013.....</p> <p>The more detailed part of the report shows in a bit more detail how they achieved what they are calling net zero regulated carbon using SAP at the design stage. Two questions here:</p> <ol style="list-style-type: none"> 1. What would the specification have shown if the design was based on PHPP rather than SAP 2. What was the in-use performance of the new homes. 	
George Martin	Para 3.13	I do not understand why there is reference to the 2013 regulations. The buildings other than dwellings Part L is currently the 2021 edition incorporating the 2023 amendments.	The reference to 2013 is within the parent policy NZC1 in the DPD and something the SPD cannot change.
George Martin	Para 3.14	The 2021 Regs are correctly stated here. The DPD is a small improvement on the 2021 Regs. 27% required in the Regs and 35% in the DPD. Is this measurable but what about the performance gap?	The performance gap is covered in paragraphs 3.28 - 3.32.
George Martin	Para 3.15	What does ‘weight in favour’ mean? Of course the Council would support that the 21 Regs are lower carbon than the 2013 regs.	This is a commonly used phrase to indicate that something is more likely to be beneficial than the alternatives provided.
George Martin	Para 3.17	I do not understand this. Why firstly to pursue a 19% improvement on the 2013 regs.....this is confusing.	The reference to 2013 is within the parent policy NZC1 in the DPD and something the SPD cannot change.
George Martin	Para 3.18	It is not sufficient to say – just put in a Heat Pump.....but what heat pump	Heat pump is used as an example, later in the paragraph it does provide values for different types of

			heat pumps. To allow flexibility the SPD is not stipulating a particular type of heat pump to be used/prioritised.
George Martin	Para 3.19	<p>Modern heating systems such as heat pumps. What other modern heating systems are there?</p> <p>Is gas definitely not going to be allowed? Confirmation required.</p> <p>One thing missing from all of this is that there is a lot of effort going into ways to hit the 35% emissions reduction.....but little to show how easily a higher % could be achieved with Passivhaus?</p>	Table 2 provides known sources of technologies which would contribute to lowering carbon emissions in non-domestic buildings. This provides flexibility in how carbon reductions are achieved.
George Martin	Table 2	<p>This needs to be clearer.</p> <p>Still reference to the 2013 TER. Why is this not 2021Part L? I think what is being implied is that there is a target of 35% overall emissions improvement target of which 19% must come from energy efficiency measures, not renewable generation. What is being implied is that heat pumps and heat networks count as energy efficiency and not renewables. If this is correct it should be made clear.</p> <p>Not Biomass – just should not be allowed in the district due to air quality.</p> <p>Not wind</p> <p>Not hydro</p> <p>Solar thermal is now not recommended. PV is by far more appropriate.</p> <p>No mention of triple glazing?</p> <p>No specific mention of MVHR.....does mention exhaust air heat recovery.</p> <p>Direct electric heating is not cost effective in operation and not appropriate if it requires gas.</p>	<p>The reference to 2013 is within the parent policy NZC1 in the DPD and something the SPD cannot change.</p> <p>The table heading can be amended to make it clear it relates to carbon reductions sought to non-domestic buildings under NZC1. Please see the proposed modifications.</p> <p>Table 2 provides known sources of technologies which would contribute to lowering carbon emissions in non-domestic buildings. This provides flexibility in how</p>

			carbon reductions are achieved.
George Martin	Para 3.22- first bullet point	<p>I do not understand that for non domestic buildings applicants can use Part L 2013 or 2021. This needs to be clarified.</p> <p>The rest is OK except question of 'heating fuel'. If no gas and no biofuel it must be electricity? So state this.</p> <p>Bullet point also on 'Commentary of proposed zero or low carbon energy sources.....</p> <p>Electricity is not zero carbon yet but will be. What other energy source is possible?</p> <p>Check out the Offsetting policy.</p>	<p>The reference to 2013 is within the parent policy NZC1 in the DPD and something the SPD cannot change.</p> <p>Under the bullet point starting 'commentary on proposed zero or low carbon energy sources' this references Section 5 of the SPD which outlines the types of technologies to be considered.</p>
George Martin	Para 3.28	<p>IMPORTANT – this is for as built.</p> <p>Mention should be made here of use of BS 40101.</p> <ul style="list-style-type: none"> • This would include in-use measurement of energy? • Measuring indoor air quality including CO2? <p>The Scottish Government require CO2 monitoring in all new homes.</p>	In addition to the measures outlined in 3.28, BS40101 is referenced in the following sub-section and paragraph 3.30
George Martin	Para 3.30	<p>Needs to be stronger.</p> <p>Building Performance following occupancy is a must in order to hold Developers to account. BS 40101 – The Building Performance Evaluation standard must be mandated.</p>	The SPD cannot mandate this requirement as it is beyond the remit of this SPD to include new requirements.
George Martin	Para 3.32	<p>Yes good.- but what if the Developer does not do this. The Developer doing their own method of POE cannot be trusted.....marking their own homework!</p> <p>This is where a bespoke QA process as in 3.29 and BS 40101 as in 3.30 is essential.</p>	The as-built calculations will be required as a condition of planning permission. This would align with methodology used pre-permission, e.g. SAP,

			SBEM or alternatively through PHPP calculations. This is to be supplemented by those measures included in 3.28. The developer is encouraged and recommended to use quality assurance process as outlined in paragraphs 3.29-3.30.
George Martin	Para 3.33	Excellent – Passivhaus certification. Not sure why a developers would build some to Passivhaus and some not? Bad for marketing.	Comments noted
George Martin	Para 3.34	All good for the Classic' Passivhaus targets for housing. Need to have the criteria for non domestic buildings Need to have the criteria for retrofit which is called EnerPHit.	Passivhaus certification is an alternative route to comply with NZC1. Passivhaus certification is referred to 'Passivhaus buildings' and therefore applies to dwellings and non-domestic development. EnerPHit is recommended in Section 8 for retrofit for existing buildings. This cannot be made mandatory as the SPD cannot add new requirements. This is not a requirement in the DPD policies.
George Martin	Para 3.35	The criteria for both Plus and Premium should also be stated so as to demonstrate just how much better these are.	Comments noted.
George Martin	Para 3.36	Correct. It is correct to state the robustness of the PHPP calculation methods. However, no where in the document	Comment noted. SAP and SBEM however remain the calculation methods under

		does it state the complete inadequacy of the SAP and SBEM methods of calculation.	building regulations and are referred to in the DPD.
George Martin	Figure 2	Absolutely excellent. A similar bar chart is need to demonstrate the difference in 'performance gap' between the Building Regs and Passivhaus.	Comments noted.
George Martin	Para 3.37	Correct.....but potential home owners need to understand this and have PV panels and a battery installed	Comments noted.
George Martin	Para 3.38	Correct. IMPORTANT. How can WDC incentivise developers to go Passivhaus Classic or Plus. Developers will not want to go down the Passivhaus route voluntarily – they will need to have some sort of incentive. Not one of the top 10 developers have built a Passivhaus building so there is no information yet available to understand if a certified Passivhaus achieves a premium in the market. The Passivhaus Trust are working on this. Some kind of incentive will be required such as: Additional footprint? <ul style="list-style-type: none"> • Higher density ? (they do this in Vancouver) • A grant from somewhere ? (they do this in Wales) • A lower section 6 payment? • A fast track process for planning approval? 	Comments noted. Significant weight will be afforded to schemes which achieve Passivhaus Plus or Premium. The weight within the planning balance this is given, depending on other matters and material considerations, would be down to the decision maker.
George Martin	Policy NZC2(A)- Making Buildings energy efficient- Para 4.1	Policy NZC2(A). Table in green.....– IMPORTANT. I do not understand why there is reference to the 2013 regulations for non-residential buildings. The Buildings other than dwellings Part L is currently the 2021 edition incorporating the 2023 amendments. Perhaps there is a reason for this that I do not know about. It would need someone with more expertise to say if this fabric improvement for domestic and non-domestic buildings goes far enough.	The reference to 2013 is within the parent policy NZC1 in the DPD and something the SPD cannot change.
George Martin	Para 4.2	Agreed that high fabric efficiency is important, however is what is proposed high enough?	As above

George Martin	Para 4.3	Table 3. – needs a review with someone with more expertise. IMPORTANT. I do not understand why there is reference to the 2013 regulations for non-residential buildings. The Buildings other than dwellings Part L is currently the 2021 edition incorporating the 2023 amendments.	As above
George Martin	Figure 3	Correct and from LETI Overheating is an increasing problem. Look to see if reference to the Good Homes Alliance Note that the Good Homes Alliance has launched a “Shading for housing: Design guide for a changing climate” on the 9 th November 2023.	We welcome this useful suggestion and will add the reference into the text in Figure 3 – please see the proposed modifications.
George Martin	Para 4.5	In addition to the energy efficiency benefits – need to look specifically at overheating.	Comment noted
George Martin	Para 4.6	Correct No specific mention of having an appropriately sized heat store (hot water cylinder). This should also be linked to the PV panels.	Comments noted.
George Martin	Para 4.7	Basically, solar panels reduce the carbon emissions for a building.	Comments noted
George Martin	Para 4.8	Flawed. It would appear that Policy NZC2(A). is based on the anticipation of the Future Homes Standard which has not been finalised. Rumour has it that there will be a new SAP. SAP 10.2 will be replaced. Possibly not at SAP 11 but as something new.....possibly closer to PHPP! The consultation on this was due in the summer – not yet published.	Policy NZC2(A) has been subject to various rounds of consultation and amends have been suggested at main modifications consultations. The policy wording of the DPD including NZC2(A) policy is not subject to this round of consultation.
George Martin	Table 4	This is based on an early consultation of the FHS.	The figures in this table identify the baseline notional

		Which column is the SPD being based on – the 2021 regs or the FHS 2025? 4.12 states that applicants are not required to build precisely to the FHS specification.	building under 2021 Building Regulations and provides the notional specification of the FHS – references are provided for the source of this information. The table and paragraph 4.8 demonstrate that the FHS specification would achieve the 10% improvement on TFEE. This is an illustration of how the policy can be achieved but does not dictate that this is how 10% is achieved. Please see the proposed modifications to the titling of this table.
George Martin	Para 4.12	This is not clear. The wording needs to be improved so that the intention is clear.	Comments noted. We do not feel that this paragraph needs rewording when read in connection with 4.11-4.13.
George Martin	Para 4.14	Correct – but reference should be made to specific overheating guides. E.g. the following guidance and tool is produced by the Good Homes alliance. https://goodhomes.org.uk/overheating-in-new-homes	Comments noted, please see comment and proposed modifications.
George Martin	Para 4.15	I do not understand why there is reference to the 2013 regulations for non-residential buildings. The Buildings other than dwellings Part L is currently the 2021 edition incorporating the 2023 amendments. My opinion is that a 19% improvement on 2013 is just not good enough.	The reference to 2013 is within the parent policy NZC1 in the DPD and something the SPD cannot change.

George Martin	Table 5	<p>I would need someone with more expertise to go through this.</p> <p>Interesting that when non-domestic buildings are mentioned it is with the 2021 Part L and not the 2013 part L.</p> <p>When looking at this portion of Table 5 where it says “greater improvement to these fabric and airtightness values is encouraged” developers are not going to do this on their own...so why have this meaningless statement. Why not increase the fabric and airtightness requirements NOW?</p>	<p>The policy requires a 19% improvement and the policy provides flexibility to how this achieved through a range of measures.</p> <p>The fabric, or air tightness requirement cannot be altered in the SPD as the SPD cannot change or go beyond the DPD policies.</p>
George Martin	Para 5.1	<p>The Policy is good but needs careful management when developers come back to say that ‘compliance is not feasible or viable’ Who in WDC has the skills and expertise to assess this.</p> <p>‘Zero carbon ready’ can be a cop out for developers. The electricity grid will eventually be zero carbon.....that said if there is insufficient fabric, a high airtightness and a large performance gap a lot more electricity will be used.....so here it would be zero carbon but would cost a fortune in electricity bills.</p>	<p>Comments noted. Please refer to previous response.</p>
George Martin	Para 5.2- Table 6	<p>For dwellings – 63% minimum or 100% where feasible. How has the skills to assess this?</p> <p>For non-residential – uses part L 2013 TER.....why not 2021</p>	<p>Please refer to previous response.</p>

George Martin	Para 5.3	<p>Direct electric heating.....basically too expensive with current electricity costs and when stated with solar panels.....these need to have a minimum of kWp. Having 4 or 5 will not cut the mustard!</p> <p>Biomass – I really do not thin this should be encouraged. It is one thing to have the timber sustainably managed it is another to have it transported from the other side of the world. Just remove it.</p> <p>Biogas.....I think probably not.</p>	This is covered in tables 7-18.
George Martin	Table 7	ASHP – mostly good however aa bit more information is required most especially for retrofitting. Terraced homes and flats can be difficult and planning discussion for homes in a conservation area of for Grade I and Grade II homes	Comments noted.
George Martin	Table 9	Quite good but needs some revision. Solar thermal is stated and I believe that now it is best to have solar PV and to use some of the PV energy to heat the water storage devise using an App through an immerser. Also the bigger the cylinder the better when heated with PV	Comment noted
George Martin	Table 10	Good but in the first paragraph separate out MVHR from heat recovery from waste hot water. The latter is very cheap to install and should be in all properties now.	Comment noted
George Martin	Table 11	<p>Need to reword the second paragraph as this is confusing. First it states that it is 100% efficient and then states that it is three times less efficient.....I know what they are trying to say....but confusing.</p> <p>Wording.....MUST not should be avoided for occupants vulnerable to energy costs.....</p> <p>Mention should be made of the benefits of underfloor heating which runs at lower temperatures to radiators.</p>	Comments noted. Please see proposed modification.

George Martin	Table 12	Energy storage – Location. If installed internally, batteries have in addition, specific clearance requirements on each side and to the front. Correct stating the inclusion benefits when having PV.....however needs to has sufficient PV just 4 or 5 panels.	Comments noted.
George Martin	Table 13	Solar photovoltaic panels – Statement Solar PV should be considered standard for new developments.....MUST? Two points to add: Roof design is important so dormer windows and velux type windows on south, west and east elevations will reduce the available roof space and/or have unwanted shade. Sufficient panels should be provided to have at least 3.5kWp preferably more especially if combined with a battery.	Comments noted. The NZC2B refers to zero or low carbon technologies and such does not dictate the use of PV, applicants are expected to employ a technology, or a mix of technologies, which meets the requirements of the policy. Clarification of roof structure added to Table 13 – please see proposed modifications.
George Martin	Table 14	Solar thermal – Should have an added paragraph to look at the efficiency by comparison with PV. For the majority of homes I believe it is best to have max Solar PV and NOT have solar thermal. It also needs maintenance whereas PV does not.	Comments noted.
George Martin	Table 15	Combined Heat and Power – It states that quote “CHP systems with fossil fuel use should be avoided”so why have this as an option?	It may still be a feasible and viable option in some instances.
George Martin	Table 16	Biomass – Quote “ Unlikely to be suitable for schemes in urban areas due to air quality” Agreed. Just make this explicit – it is a non starter for Warwick District.	It may still be a feasible and viable option in some instances, for example in rural areas with ready access to onsite/nearsite biomass.
George Martin	Table 17	Wind – make it clear that micro wind turbines on individual homes are a complete waste of time. See the Encraft report on the Warwick trials.	Comments noted.

George Martin	Para 5.9	But who is going to assess the viability of such a scheme when developers come back to say it is not viable as has happened many times in the past few years.	Please refer to previous response.
George Martin	Para 5.13	<p>A few things to add:</p> <ul style="list-style-type: none"> • Heat networks can contribute to overheating in flats and care homes due to the amount of hot water in pipes in communal areas • Heat pumps are widely used in mainland Europe but not so much in the UK. Primarily this is due to a lack of maintenance of systems in the UK. • Community benefits are not always deliverable as there is just one energy supplier and that organisation has the community over a barrel for costs. • Must make it clear that this is no fossil fuels. 	Comments noted. Modifications proposed to note consideration to the risk and mitigation of overheating is also required.
George Martin	Policy NZC(C)	<p>The paragraph in the green box that states quote:</p> <p><i>“Where assessment undertaken at completion shows that there is a performance gap between the design and the performance of the completed building , carbon offsetting contributions will be required to reflect any associated additional carbon emissions not accounted for.....”</i></p> <p>Who in WDC is going to manage this. Every building that is designed using SAP will have a performance gap. Who is going to be measuring the operational performance of the buildings. This will be a full time job?</p>	<p>The green box is a policy wording from the DPD and cannot be changed.</p> <p>This is covered by paragraph 3.28</p>
George Martin	Para 6.1	Who is going to check the viability statements?	The Council already review the financial viability of developments and would seek

			external consultants support if this was required.
George Martin	Para 6.2	But who is going to provide the argument with the developer? Does the Council have a verified local offsetting scheme? It will need one. See the green box.	This is currently proposed to be via the WESTP being led by the County Council.
George Martin	Para 6.3	OK but who is going to fight this.	Please see the response above in relation to development viability.
George Martin	Para 6.4	OK if offsetting is allowed.	
George Martin	Para 6.5	It would be good to check the Councils formula with someone that knows.	
George Martin	Para 6.6	OK – do we understand what Warwick’s Carbon Offsetting Fund is. Who developed it? Is it robust?	This is currently proposed to be via the WESTP being led by the County Council.
George Martin	Para 6.7	Who developed the WESTP and is it robust?	It is developed by Warwickshire County Council and will be subject to public consultation.
George Martin	Para 6.8	Statement says....“The Council’s prioritised method of offsetting is through tree planting” This is just nonsense and must be scrapped from the policy. Perhaps.....just perhaps as a very last resort.....but not prioritised. Need to have a specific offsetting hierarchy.....with trees in Warwick District as near to the last resort. Trees elsewhere geographically to be even lower.	Other methods of offsetting are covered in paragraph 6.9
George Martin	Para 6.9	I think not. Can applicants provide carbon offsets directly rather than contributing to the Council’s Offsetting Fund?	NZC2C provides the alternate provision for offsetting outside of the Council’s Offsetting scheme and the criteria for this. It is clear however that

			this is at the discretion of the Council.
George Martin	Para 6.10	This is opening up a whole bag of worms. The previous section is bad enough but allowing developers to set up their own schemes is asking for trouble. I would recommend that this is not allowed. Who for example would administer this on behalf of the Council. Can developers be trusted?	Paragraph 6.10 expands on the point raised above and sets the criteria for alternatives.
George Martin	Table 19	WDC need to develop an embodied target for the different types on Development. Just saying reduce where possible does not cut the mustard. Need also to have an assessment at the design stage and a follow up on completion of construction. Has the construction process improved the embodied carbon saved – and if not why nowt and what are the lessons learned...for the contractor and for WDC.	An embodied carbon target is not set in NZC3, and such the SPD cannot change the policy. Table 21 provides suggested targets for whole life embodied carbon.
George Martin	Para 7.5	Define major and super major developments? Otherwise good. There are many assessment methods in the marketplace. Here is a selection: <ul style="list-style-type: none"> • Greater London Authority • LETI • UK GBC • Passivhaus Trust • AECB • CIBSE • Consultants such as Arup The best example that I know of is the WWF HQ building in Woking where a carbon budget was set at the beginning of the project at design stage. The embodied carbon work that was carried out was by Sturgis.	Comments noted.
George Martin	Para 7.6	OK – but depends on what assessment tool is used.	Comments noted

George Martin	Para 7.7	Applicants need to submit what assessment tool that they are using and what organisation (consultant) will be managing the process. This is not easy and is very time consuming.	Comments noted
George Martin	Para 7.8	Not as simple as that. There are new types of concrete in the market. Aluminium manufactured using Hydro electricity have low embodied carbon. There are also other environmental benefits to take into account – but how e.g. recycled content of steel, glass and plastic.	Comments noted
George Martin	Para 7.9	OK ish – but at the top is Aluminium and if produced by Hydro power the embodied carbon is low. Can also have a very high recycled content.	Comments noted
George Martin	Para 7.11	Define major development Why would a development not be required to complete a whole-life embodied carbon assessment?	This is a common definition for development.
George Martin	Para 7.12	BREEAM – there are other LCA tools. BREEAM I do not understand this paragraph. Needs to be more explicit. There is also a need to highlight in the document (not found yet) the many and various BREEAM levels with a description of what they cover and what they do not. For example it should be explicit that for an application using BREEAM that the maximum credits for energy and carbon saving are mandated. This rules out BREEAM very good. For BREEAM Mat 02 which is an optional credit – this should be mandated. BRE Green guide – please note the following: “From 2021 BREEAM will no longer recognise The Green Guide to Specification. Current Ratings will remain valid, but new EPD will need to comply with EN 15804. Digital is the future: LCA tools and whole building assessments.”	Comments noted. BREEAM rating is not set by the policies in the NZC DPD and instead is set by Local Plan policy CC3. The SPD cannot set new policy.

George Martin	Para 7.13	More to be considered including: <ul style="list-style-type: none"> • WLC One Page by LETI • LETI Embodied Carbon Primer • Climate Change and Energy • Circular Economy • RICS Whole Life Carbon Assessment • The WLC Methodology: BS EN 15978:2011 • RICS Whole Life Carbon Assessment for the Built Environment 	Paragraph 7.17 sets out the route for using an alternative methodology.
George Martin	Para 7.19	Other sources may be available	Comment noted.
George Martin	Para 7.20	See response to Para 7.13	Comments noted
George Martin	Para 7.21	Do not forget that the FHS is not yet finalised. I suspect that the FHS is NOT ambitious	Comments noted
George Martin	Policy NZC 4- Existing Buildings	Why is this section not divided into Domestic and non-Domestic?	The policy is worded “all developments” which would indicate both domestic and non-domestic buildings. Policy NZC4 cannot be amended as it is a DPD policy.
George Martin	Para 8.1	Look at Local Plan CC1 – look to see if this is fit for purpose GM Surely the energy source of choice should be with no fossil fuels and an assessment is required if this is not deemed possible.	Policy CC1 is an adopted policy in the adopted Local Plan which will be reviewed as a part of the South Warwickshire Local Plan (SWPL), it cannot be amended by this SPD.
George Martin	Para 8.2	Applicants are encouraged’encouraged how? ...and “will apply significant weight to proposals”how? What is this in reality?	The weight within the planning balance this is given, depending on other matters and material considerations,

			would be down to the decision maker.
George Martin	Para 8.4	No mention yet for the following standards: <ul style="list-style-type: none"> • PAS 2035 for domestic • PAS 2038 for non-domestic • AECB retrofit standard • EnerPHit • Energiesprong • NABERS • And others.....?? 	A selection of these methodologies has been included in this section.
George Martin	Fabric First Approach	Yes...but not always.....especially for those that can afford to pay?? Think about PV battery and ASHP where appropriate.	Comments noted.
George Martin	Para 8.5	Not adequate – need to include the detailed methodologies as laid out in PAS 2035 and PAS 2038	NZC4 does not require the applicant to submit an assessment in accordance with a recognised methodology. Paragraph 8.5, alongside 8.6 outlines what measures can be considered under the fabric first approach.
George Martin	Para 8.7	Not sure that this is not correct. For those that can pay – PV – battery and ASHP might be all that is needed and is almost no inconvenience to the occupier. That is why a ‘Whole House Plan’ is needed in accordance with PAS 2035. Employing low or zero carbon technologies:	The energy hierarchy remains important for retrofitting as improving the fabric of a building will lower the overall energy demand – whether that be demand on the grid, or demand through zero or low carbon technologies.
George Martin	Para 8.8	but the presumption should be in favour of no gas in the first instance. The paragraph needs to change the emphasis.	The wording of paragraph 8.8 aligns with the wording of NZC4.

George Martin	Para 8.9	Need to categorise practically: Not biomass.....air quality – remove this as an option Wind generation and Hydro not appropriate for urban situations	Paragraph 8.9 refers back to the technologies included in Section 5, which may be applicable for buildings in different contexts and localities and such is not overly prescriptive.
George Martin	Para 8.10	Is gas going to be allowed in this SPD? Surely this SPD bans gas boilers now! Developers should not be putting gas on development sites NOW.	This paragraph expands on NZC4 and outlines what is expected from applications to align with the policy.
George Martin	Para 8.13	Good that PAS 2035 is mentioned at last. More detail needed and especially the need for a whole house plan. Question – is this SPD for homeowners? IS this SPD for designers and contractors working for WDC to retrofit council homes? If so the supply chain needs to be suitably accredited – PAS 2035 and 2038 and MCS, Trust mark etc. This is all a bit confused. This paragraph needs to be improved so that a home owner should they be reading this.....is more fully provided with information. Just saying PAS 2035 and then look for an experienced MCS installer.....do WDC know how difficult this is?	The SPD is for everyone including homeowners, developers and any other relevant stakeholders. On this topic it is providing general guidance to support applicants in considering and planning retrofitting in existing buildings.
George Martin	Para 8.14	Recommended retrofit targets and quality assurance standards.	See paragraph 8.15
George Martin	Para 8.15	Who are these applicants? Presumably not individual home owners? Applicants 'could ' pursue? Surely WDC should be setting retrofit targets. Rest OK ish but should add in AECB retrofit standard.	NZC4 is for existing buildings, and so would cover any applicant would was submitting an application involving an existing building. The guidance has been written

			to apply to different forms of developments.
George Martin	Para 8.16	Are the targets above 'recommended'? that is not what 8.15 says. Paragraph is wishy washy.	Comments noted.
George Martin	Para 8.17	Well – at long long last we have statement that SAP and SBEM are not well suited for this.....absolutely agreed.....as indeed they are not suited for new build either.	Comments noted.
George Martin	Para 8.18	Energy monitoring. Here the use of BS 40101 should be mandated.	It is not within the remit of the SPD to mandate it. The SPD can only encourage this.
George Martin	Para 8.21	PAS 3035 – correct – this is for domestic. Need also to include PAS 2038 for non-domestic buildings.	Comments noted. Modification proposed to reference PAS 2038
George Martin	Para 8.23	Add in AECB and National Retrofit Hub	This is an organisation, but not a toolkit or guide as the other three examples are.
George Martin	Glossary	<ol style="list-style-type: none"> 1. Performance Gap is important and only mentioned twice in the document. 2. In relation to offsetting Where assessment undertaken at completion shows that there is a performance gap between the design and the performance of the completed building.....” Please note that this will be for absolutely every building that is designed using SAP and SBEM. 3. Include Good Homes Alliance, PAS 3038, NABERS, AECB, UK GBC, Energisprong. 	Comments noted. Modifications proposed include definition of the performance gap and inclusion of PAS 2038. Remaining terms have hyperlinks in the text and so referenced clearly.
George Martin	Annex	<ol style="list-style-type: none"> 1. All of the forms in the annex relate to compliance with the design. There are no forms relating to operational carbon.....performance in use? 	<ol style="list-style-type: none"> 1. The forms set out what information is needed within a planning application –

		<ol style="list-style-type: none"> 2. The forms are for completion for submission as part of planning. The forms take no account should Passivhaus methodology using PHPP be put forward. 3. The DPD is all about operational carbon. There are no forms to deal with building performance evaluation – POE? Why have these not been included. 	<p>this is a building as designed.</p> <ol style="list-style-type: none"> 2. Passivhaus is put forward as an alternative route. Modifications proposed to introduction of Energy Pro Forma 3. The Pro-Forma's set out what is required at the point of making a planning application (designed and not built).
George Martin	Not in the SPD	<ol style="list-style-type: none"> 1. The use of sophisticated controls with Apps and zoning of heating in buildings 2. There should be a retrofit section specifically for non-domestic buildings with the inclusion of PAS 3028 3. Energiesprong should be highlighted for retrofit of homes. 4. Underfloor heating is not mentioned – this is beneficial in all cases and particularly for ASHP . 5. Should have a section on the use of NABERS for new non domestic buildings. 	<ol style="list-style-type: none"> 1. The scope of the SPD covers measures which contribute to achieving the NZC policies. We accept there are numerous tools which can support operational reductions in carbon however this is beyond the scope of the SPD. 2. PAS 2028 has been added through modifications. 3. Paragraph 8.23 provides a range of

			<p>tools, applicants may choose to use others.</p> <p>4. As per response to point 1.</p> <p>5. NABERS only for offices. .</p>
Janet Neale (Warwickshire County)	Whole SPD-general comments	<ul style="list-style-type: none"> • The SPD is well thought out and upon compliance will give us the buildings I suggest we want to see being built. • True to the title the standard will deliver NZC in most cases (excluding some versions of Passivhouse - see below and where allowable exclusions are granted). • We believe it is important that this happens rapidly given that this will effectively introduce the future homes standard when adopted for dwellings. It has often been the case that future national building regulations have been significantly watered down, so this is an opportunity for WDC to incorporate this desire now before any potential U-turns. • Flood risk commented at DPD stage and feel that there are no further comments to make. 	Comments noted.
Janet Neale (Warwickshire County)	Whole SPD-specific comments	<ol style="list-style-type: none"> 1. For dwellings, target emissions rate set at an equivalent to the future homes standard (c. 75% reduction on Part L 2013). 2. For comparison, non-domestic standard is just 35% uplift from Part L 2021. Perhaps lacking ambition on first glance but Part L 2021 already introduced a 27% improvement v 2013. 3. Good to see that the standards are achievable by referring to a case study completed by Countywide / Vistry. 	<p>Positive comments noted and we welcome WCC's offer to work collaboratively with the Council.</p> <p>In response to point 7: compliance with the various Passivhaus packages is explored in paragraphs 3.37-3.39 and even Passivhaus Classic represents a significant</p>

		<ol style="list-style-type: none"> 4. Heating technologies: gas boilers not permitted; direct electric considered unlikely (WCC agree). 5. District heating suggested as a solution but to avoid gas fired CHP. 6. No consideration about grid capacity although this is perhaps not the doc for it. Perhaps this should be referred to even if only to say how grid capacity is being dealt with. 7. Passivhouse considered an allowable route to compliance despite it not being net zero carbon. Why? 8. Post occupancy evaluation recommended but not required. 9. Adaptation dealt with by reference to overheating and to a separate planning document that WDC have produced: Local Plan Policy CC1 'Planning for Climate Change Adaptation'. 10. Requirement to offset where cannot demonstrate that it is net zero carbon. <ol style="list-style-type: none"> a. Option a. a cash in lieu contribution to the District Council's carbon offsetting fund (via S106); b. A verified local off-site offsetting scheme. The delivery of any such scheme must be within Warwickshire or Coventry, guaranteed and meet relevant national and industry standards. If it is a nature-based carbon sequestration scheme, then it must be backed by the national government's Woodland Carbon Code initiative (or future replacement/equivalent national scheme) and meet the Warwickshire ecosystem service market trading protocol. 	<p>improvement in fabric efficiency to comply with NZC1.</p> <p>Point 8 – paragraph 3.28 outlines the post construction checks required, and paragraphs 3.29 and 3.30 recommend quality assurance and post occupancy monitoring that is recommended. Positive weight it given to those who would use such processes. -</p>
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Coal Authority	Whole SPD	<p>The Coal Authority is a non-departmental public body sponsored by the Department for Energy Security and Net Zero. As a statutory consultee, The Coal Authority has a duty to respond to planning applications and development plans in order to protect the public and the environment in mining areas.</p> <p>Our records do not indicate the presence of any recorded coal mining features at surface or shallow depth within the Warwick District area. On this basis we have no comments to make on the draft SPD to which this current consultation relates.</p>	Comments noted

Helen du Bois (Burton Green Parish Council)	Burton Green Parish Council	<p>It was noted that the document appears to be aimed primarily at developers and their agents, rather than the public.</p> <p>Councillors applaud the intention behind the document to reduce the carbon footprint of new and existing buildings.</p> <p>The Council noted the expectation that this will result in new buildings being “net zero carbon in use”, although there is still more to do if the intention is to specify genuinely net zero carbon buildings, as “in use” does not cover the carbon footprint of constructing a building in the first place (i.e. “embodied carbon”);</p> <p>Councillors hope that WDC will lead the way by ensuring that its own new buildings comply with the standards set out in the DPD/SPD.</p>	Comments noted. We acknowledge that this subject is technical, and care has been taken to present information in a manner which is applicable to all.
Mrs Sidney Syson	Policy NZC4- Existing Buildings	i am relieved to see that alterations to existing buildings are included in the scope of this document.	Support noted.
Mrs Sidney Syson	Policy NZC1	Ver glad to see the inclusion of the following 3.31 Developers will also be required, by way of a condition, to produce a home user guide for occupiers. I trust it will be easy to understand.	Support noted and the user guide will be aimed at providing occupants information about various measures that would have been incorporated in the building and how to make best use of them.
Mrs Sidney Syson	Section 1- Introduction	A welcome step forward in WDC's climate change objectives	Support noted.
Karen Stevens on behalf of Bishop's	Whole SPD	As stated in the document, the Net Zero SPD does not contain any new policies but provides further advice and guidance to applicants and relevant stakeholders on how to comply with	Comments noted.

<p>Itchington Parish Council</p>		<p>the DPD policies. The complexity of the requirements mean that Parish Councils would rely heavily on the competency of the planning officers to ensure compliance. The document is well devised and refers to national and international standards to achieve low carbon improvements to our planning system. The use of these standards is not necessarily mandated in the document and the reality for larger building schemes must be that developers will wish to reduce costs to a minimum, whilst showing conformity using minimum cost & effort. It may be useful for individual Parishes to have an understanding of their current Net Zero status when considering new planning applications, if only to confirm that the development will contribute to the Parish Net Zero. Some understanding would be needed of the extent to which the new housing already build within the Parish currently meets the net zero requirements as well as older housing. This may be pertinent to the consideration in the local neighbourhood plan and the consideration of any new developments and any further improvements.</p> <p>The above is also important should the Parish find it needs to consider community based schemes, which might make a contribution to net zero, such as offsetting energy use in older buildings. However, community schemes have not been recognised in the document. Also not considered is the implication of the requirements on “Affordable homes” and Social Housing, where improvements could help to increase comfort and affordability in use. If the building of Affordable homes and Social Housing under the net zero requirements is not cost effective for developers will there be a reduction in the availability of such housing, which is desperately required in some areas?</p>	<p>We appreciate that technology develops quickly, and the SPD seeks to outline those current technologies which may be feasible and viable for a range of developments, contexts, and localities.</p> <p>While the policies are directed to align with the FHS, the policy requirement, i.e. net zero operational regulation carbon emissions remains the absolute target of the policy. The policy requirements set out in NZC1-NZC2B can be achieved through the application of different fabric efficiencies, and technologies and such provides flexibility in how an applicant employs measures to reduce carbon emissions in new buildings.</p> <p>The validation requirements for applicants include the energy statement alongside the detailed calculations. Where the reader does not have technical knowledge, the energy statement is there to support the development in what measures have or</p>
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Tessa Jones (Environment Agency)		<p>We have reviewed the draft SPD (dated October 2023) and whilst we currently have no statutory remit to advise on carbon reduction in this regard, we would seek to ensure climate change is taken into account through our existing functions. As such, we wish to sign post your Council to</p>	<p>Comments noted.</p> <p>The SPD provides guidance on the NZC DPD and such is narrow in scope and relates to these policies only. The</p>

		<p>mitigation advice and encourage all development plan documents to closely align with national net zero targets.</p> <p>As you are aware the UK has set out in law the target of achieving net zero by 2050. The Climate Change Act (2008) states that ‘it is the duty of the Secretary of State to ensure that the net UK carbon account for the year 2050 is at least 100% lower than the 1990 baseline.’ To achieve this, the annual rate of GHG emissions will need to be cut by over 260 million tonnes (Mt) CO₂e (carbon dioxide equivalent) from 2019 levels to less than 90 Mt CO₂e in 2050 (CCC, 2019a).</p> <p>There is a statutory duty on Local Planning Authorities (LPAs) to include policies in their Local Plans designed to tackle climate change and its impacts. Section 19 of the Planning and Compulsory Purchase Act 2004 states that ‘Local development plans must include policies designed to secure that the development of and use of land contribute to mitigation of and adaptation to climate change’.</p> <p>Revisions to the National Planning Policy Framework (NPPF) in 2021 include a requirement to promote a sustainable pattern of development, by mitigating climate change and adapting to its effects (para 11a). The NPPF also states (para 134) that enhanced local policies and government guidance on design should be given ‘significant weight’.</p> <p>The Environmental Assessment of Plans and Programmes Regulations 2004 creates a legal duty and requirement that a plan’s cumulative climate impacts are assessed and taken into account. This includes assessing the consistency of proposed policies with all relevant climate objectives and targets.</p>	<p>Council acknowledge that there are other ways to mitigate and adapt to climate change which can be developed through policy and supporting guidance. The South Warwickshire Local Plan will continue to develop climate change policies and guidance in line with their statutory duty and in relation to carbon budgets set nationally and at a local level.</p>
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		<p>To assist in the delivery of robust climate change options we encourage you to review the RTPI /TCPA Guide : The Climate Crisis – A Guide for Local Authorities on Planning for Climate Change RTPI The Climate Crisis</p> <p>You may also wish to refer to the Tyndall Carbon Budget Tool Tyndall Carbon Budget Reports (manchester.ac.uk)</p>	
<p>Paul White (Turley)- Representation on behalf of Hill Residential Development Ltd in respect of their land interests within the Warwick DC</p>		<p>Hill Residential Ltd supports low carbon development, however, have concerns over bringing forward policies ahead of national regulations which may impact on viability and deliverability of new development. Hill Residential Ltd notes that the recent Royal Assent of the Levelling Up Bill¹ includes plans to ensure Local Plans are limited to ‘locally specific’ ‘matters with ‘issues that apply in most areas’ to be covered by a suit of new National Development Management Policies. It is anticipated this could include further energy and carbon guidance on requirements for new development.</p> <p>At a national level the Government has committed to the introduction of the Future Homes Standard from 2025 that ensures homes are Net Zero Ready and will not require any further retrofit to achieve Net Zero, ‘As we move towards a decarbonised electricity grid, homes built to the Future Homes Standard will become net zero carbon over time with no need for further adaptations or changes, as they will not be reliant on fossil fuels for their heating.’²</p>	<p>We appreciate the comments about the intent of the Levelling Up Bill. Carbon emissions are a local issue, and the Council have committed to reducing carbon emissions to as close to net zero by 2030 - the DPD and this SPD are an important part of reducing the emissions within the district in line with its own targets and those set by the Government as part of the Climate Change Act.</p> <p>The Council provided robust viability evidence at examination and this SPD does not impact the conclusions of this evidence as it does not change or amend the DPD’s policies.</p>

<p>Paul White (Turley)- Representation on behalf of Hill Residential Development Ltd in respect of their land interests within the Warwick DC</p>	<p>Validation Checklist</p>	<p>Hill Residential Ltd supports the provision of information at the application stage to set out how development will approach the requirements of the Council’s net zero policies. It is noted that there is likely to be a different level of information available as part of outline and detailed applications. For example energy modelling may not be carried out at the outline stage, instead it is considered more proportionate to allow the use of benchmark data at an outline planning stage. Similarly at the outline stage there is likely to be insufficient information to prepare a detailed Whole Life Carbon Assessment. To improve the soundness and deliverability it is recommend that consideration is given to the availability of information at the outline stage and this should be recognised and applied proportionally in the validation requirements, and Energy Proforma.</p> <p>Within the SPD, Hill Residential Ltd recommend that the following text be included: <i>It is understood that at the outline planning stage full development details, material specification or the final energy strategy may not be available. For outline applications, it is recognised that a detailed response to these policies will be challenging and so a proportionate response is acceptable.</i></p>	<p>We welcome the support of the Council’s net zero policies and agree that different levels of information will be required to provide different level of information.</p> <p>The SPD at paragraph 3.27 details that an applicant would need to identify the expected building specification in their energy statement and pro forma. This information is required to demonstrate that the development has been planned to be net zero carbon in operation (regulated energy). The Council believe that this should be considered at the earliest stage of design development to ensure that any resulting development can meet the requirements of the net zero carbon policies.</p> <p>At paragraph 7.7 it outlines that the design principles to lower embodied carbon are demonstrated.</p> <p>Therefore, the Council feel that a proportionate response has been taken in the</p>
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			information requested for outline applications which ensures that developments are planned from the outset to meet the requirements of the NZC policies.
Paul White (Turley)- Representation on behalf of Hill Residential Development Ltd in respect of their land interests within the Warwick DC	Policy NZC1; Achieving Net Zero Carbon Development	<p>It should be noted that the Government is due to consult on the 2025 FHS in 2023, the contents of which could alter the approach to carbon reduction and the minimum targets proposed.</p> <p>Development is then required to maximising carbon reductions through the application of the energy hierarchy as set out in Policies NZC2(A) and (B), before offsetting any residual regulated emissions.</p> <p>It is noted that Policy NZC1 applies to operational, regulated carbon only. Hill Residential Ltd support this approach, unregulated carbon emissions are generally out of the control of the developer and are subject to how occupants use energy, it is not providing occupants with energy efficient buildings in line with national and local policy.</p> <p>While Hill Residential Ltd agree with the expected FHS minimum carbon reduction target for residential development, noting this aligns with the anticipated requirements of the 2025 FHS, it is noted that in being adopted ahead of 2025 the Policy pre-empts the requirements of national guidance.</p>	<p>Comments noted. The viability of the NZC DPD has been robustly examined by the Inspector during the plans' examination, and such is not the focus of this SPD consultation as the SPD's guidance does not change or amend the NZC DPD's policies. The SPD's guidance, for example in Table 4 on page 25, uses the FHS specification as a guide to demonstrate how an applicant can meet the requirements of NZC1 in domestic dwellings, however at paragraph 4.12 the SPD makes it clear that flexibility is possible to how measures are implemented in the development.</p> <p>The SPD does not change the wording of the NZC DPD's policies which require new development to be net zero in operation (regulated energy)</p>

		<p>It is noted that the updated DPD Viability assessment (Document SUB6) includes a 6% uplift allowance for the costs of the DPD policies, however, since this was prepared in 2022 there have been significant changes in the housing market driven by significantly increased interest rates, combined with inflationary costs on materials and construction it is likely the viability of these policies has been reduced. The Future Home Hub Ready for Zero publication (2023) notes cost uplift ranging between 2% - 19% for homes meeting the FHS to Net Zero homes (regulated), this is substantially different to the sources used in the preparation of the DPD.</p> <p>Furthermore, the evidence base justifying the policies within the draft DPD does not include a recent, locally specific viability assessment of the impact of the draft DPD, instead relying on a 2021 study 'Etude and Currie and Brown Energy Review and Modelling for the Cornwall Council Climate Emergency DPD'. This document is now over 24 months old (and therefore does not reflect the recent increases in build costs). The lack of up-to-date evidence highlights the importance of the FHS consultation providing clarity on the associated costs in achieving the minimum targets, and helping clarify additional costs beyond this point.</p> <p>While an updated viability assessment has been provided as part of the ongoing examination of the DPD Hill Residential Ltd consider that care needs to be taken in the application of policies which come ahead of national policy.</p>	<p>and so there remains flexibility to how applicants employ the energy hierarchy to achieve this, providing they meet the % reductions set against current buildings regulations. New development in the district would be expected to meet the requirements of the NZC policies and building regulations applicable to development at the time. This may result in a situation where the DPD's policies are superseded and such development will be built to a higher standard to comply with Building Regulations, or in the event that building regulations have a lower standard, the DPD's policies will require that buildings meet a higher standard and reduce carbon emissions against the baseline of current building regulations. Passivhaus remains an alternate route to compliance, the SPD makes this clear in pages 18 & 19. We appreciate the comments that large new settlements can be planned holistically where carbon</p>
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		<p>Furthermore this requirement needs to be considered in the context of other forthcoming changes to the Building Regulations and ongoing Government consultation. For example the potential introduction of Part Z to the Building Regulations will set requirements around embodied carbon and Whole Life Carbon Assessment impacting on development GHG emissions. Other consultation points such as changes to Schedule 3 and Sustainable Drainage (SuDS) may also impact on development requirements.</p> <p>In this context, care needs to be taken in setting requirements which go beyond changing national standards. The SPD needs to be flexible, and allow for future regulation. To ensure this Policy is sound, and does not conflict with anticipated future national requirements Hill Residential Ltd recommend that the following text be inserted into Paragraph 3.1, <i>'To ensure the requirements of Policy NCZ1 do not conflict with national requirements Policy NCZ1 will only apply from 2025 or at the point of adoption of the National Future Homes Standard.'</i></p> <p>With regards to non-residential development Hill Residential Ltd do not believe it is appropriate to set a target for non-residential development which goes beyond the requirements of Part L 2021. The Future Buildings Standard set out the rationale for the c.27% carbon improvement beyond Part L 2013, noting there are a wide range of non-residential building types and some are better able to make reductions than others. It is noted in the Net Zero DPD that some building types such as schools may struggle to meet extended energy performance targets.</p> <p>Hill Residential Ltd notes that some flexibility is provided in Policy NZC2(B) which allows the use of some low carbon</p>	<p>savings can be made alongside reducing carbon emissions from transport, land use, and include climate adaptation. The NZC DPD and this SPD focuses only on carbon emissions from buildings, and such contains guidance only on this element only, but the Council would expect a developer to demonstrate compliance with other policies of the adopted local plan, for example CC1.</p>
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		<p>heating systems to be classified as efficiency measures, and it is appreciated that the role of the SPD is to provide guidance on this policy requirement. As above, to ensure this policy is sound, Hill Residential Ltd consider that it should be clear within the Policy text that it will apply from the adoption of the national Future Buildings Standard (FBS).</p> <p>Hill Residential Ltd would note that the Net Zero DPD viability assessment does include an uplift cost for this element of the policy, however reference is included in the Net Zero SPD to the requirements of the London Plan on Page 13, which as stated requires non-residential development to achieve a 35% carbon reduction beyond Part L 2021. Hill Residential Ltd would point out that the viability of development in London is very different to other areas of the Country and would question as to whether this is a suitable assessment and meets the requirements of the Planning Practice Guidance (PPG) with respect to Viability.</p> <p>Alternative route to compliance: Passivhaus certification – Hill Residential Ltd note that the SPD provides an options for the use of an alternative route to compliance with the Net Zero Policy in the form of certification to the Passivhaus. Hill Residential Ltd would note that achieving Passivhaus certification is technically difficult and increases development costs and to date not been widely delivered at a large scale. This particular route to net zero does not appear to have been tested through the viability of the DPD, it should therefore not be a requirement for development. The Future Homes Hub Ready for Zero report identifies a potential uplift cost of 17%-19% for PassivHaus levels of performance, given the</p>	
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		<p>significant cost of this requirement it needs to be considered in the viability assessment. The baseline route to compliance should be via the FHS.</p> <p>The assessment requires the collation of information and data once the building is complete, there is then a period of time required to validation to certify a building⁴. Hill Residential Ltd would recommend that Section 3.33 is updated where it requires the provision of a certificate prior to occupation, to give some flexibility. For example: <i>'Applications would also then be required to submit the finished Passivhaus certification to the Council for discharge of conditions prior to within 3 months of occupation.'</i> This is more in line with developments which undergo a BREEAM assessment and certification where a similar verification and certification process is required and is completed post construction, with flexibility given to not hold up the occupation of the building.</p> <p>New Settlements – Currently the SPD includes reference to requirements for one or more homes, and non-residential development over 1,000m². Hill Residential Ltd would note that 'super major' development such as the Hatton New Settlement will face a number of challenges and opportunities due to its scale which differ significantly from smaller settlement extensions or infill development. For example the provision of new transport links, and community infrastructure to support new settlements adds cost to development which is not necessarily a requirement of smaller development. Super major development offers other socio-economic benefits which should be reviewed in the context of other development requirements, such as the Net Zero requirements, to ensure a wide range of benefits are derived from development and not restricted.</p>	
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		<p>New settlements require significant infrastructure for their delivery, this is an important consideration in terms of viability which may not have been appropriately considered in the DPD viability assessment, this may impact on detailed requirements for development.</p> <p>There are also however opportunities within new settlements for measures to support carbon reduction, for example large scale on-site energy generation, carbon sequestration through green, blue and grey infrastructure, and carbon savings through internalisation of jobs and creating a walkable community reducing the need to travel and associated transport emissions. These measures have wider social and economic benefits around air quality, community spaces and supporting local services.</p> <p>Hill Residential Ltd would recommend that guidance is included in the SPD which relates to super major development of significant scale such as the proposed Hatton New Settlement which recognises the challenges and opportunities these present in supporting the Net Zero policies.</p>	
<p>Paul White (Turley)- Representation on behalf of Hill Residential Development Ltd in respect of their land interests within the Warwick DC</p>	<p>Policy NZC2(A): Making buildings energy efficient</p>	<p>This section sets out the contribution that the building form factor can have to efficiency. While this is noted care needs to be taken when balancing form factor against housing requirements and design. Homes are also expected to achieve a 10% improvement beyond the Part L Target for Fabric Energy Efficiency (TFEE). It is expected that the FHS will require homes to make improvements to the TFEE beyond Part L 2021, for example making use of high efficiency windows, doors and fenestration elements.</p>	<p>New development in the district would be expected to meet the requirements of the NZC policies and building regulations applicable to development at the time. This may result in a situation where the DPD's policies are superseded and such development will be built to a higher standard to comply</p>

		<p>In this context Hill Residential Ltd broadly agrees with the requirement, however, it is recommended that a paragraph is included to make reference to the FHS and anticipated consultation to ensure any requirements set out through that process are incorporated, or supersede the requirements of the policy where <i>appropriate</i>.</p> <p><i>Paragraph insert – The requirements of Policy NZC2(A) will be subject to further updates and guidance with respect of the Future Homes Standard, applicants will be required to meet any future superseding requirements set through the Building Regulations.</i></p> <p>Non-residential development is required to achieve a 19% carbon reduction beyond Part L 2013 through energy efficiency measures. The FBS set an aggregated 27% carbon reduction for non-residential development beyond Part L 2013, noting that there is a range of building uses and some will find it harder than others to meet this requirement. It is noted that for the purposes of this policy a range of hybrid ‘efficiency/energy supply’ measures can be classed as efficiency measures, including heat pumps and heat networks. As noted in Paragraph 4.21 it should be possible for the majority of non-residential buildings to meet this standard as part of meeting Part L 2021, however Hill Residential Ltd would recommend that a paragraph is inserted to allow for justification to be made through the Energy Statement as to why it may not be feasible to achieve this target given the nature of the building use.</p>	<p>with Building Regulations, or in the event that building regulations have a lower standard, the DPD’s policies will require that buildings meet a higher standard and reduce carbon emissions or make improvements against the baseline of current building regulations.</p> <p>The SPD does not and cannot change the wording of the NZC policies.</p> <p>In regards to flexibility on how non-residential developments achieve the requirements of NZC2A, amendments to paragraph 4.23 are proposed to reiterate that where full compliance is not feasible or viable having regard to the type of development involved, proposals must demonstrate through the energy statement that carbon reductions to the greatest extent feasible through energy efficiency measures have been considered and incorporated</p>
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		<p><i>Paragraph insert – Where non-residential development is unable to meet the requirements of Policy NZC2(A) due to the nature of the building use justification will need to be provided as part of the Energy Statement accompanying the application.</i></p> <p>Similar to above it is recommended that consideration is given to the requirements of any superseding Future Buildings Standard and updates to the Building Regulations.</p> <p><i>Paragraph insert – The requirements of Policy NZC2(A) will be subject to further updates and guidance with respect of the Future Homes Standard, applicants will be required to meet any future superseding requirements set through the Building Regulations.</i></p>	
<p>Paul White (Turley)- Representation on behalf of Hill Residential Development Ltd in respect of their land interests within the Warwick DC</p>	<p>Policy NZC2(B): Zero or Low Carbon Energy Source and Zero Carbon Ready Technology</p>	<p>Hill Residential Ltd has concerns over the viability of the Council’s DPD policies, when considering the feasibility and viability of this requirement on applications this needs to be taken into account, so development is judged fairly. Hill Residential Ltd would therefore recommend that the requirement of NZC2(B) is seen as an aspiration, rather than a direct requirement.</p>	<p>Comments noted. The viability of the NZC DPD has been robustly examined by the Inspector during the plans’ examination, and such is not the focus of this SPD consultation as the SPD’s guidance does not change or amend the NZC DPD’s policies.</p>

		<p>As noted in the policy, beyond feasibility and viability there are other reasons that additional carbon reductions may not be achievable, for example the design of homes which may need to be in keeping with the local area may not allow for the installation of further low carbon renewable energy technologies. Delivering development which references the local vernacular is a key design philosophy, particularly where there may be buildings or areas which provide a historic context. This may mean the design of buildings with façade fenestration, bay windows, corner turns etc which are dwelling characteristics which need to be sensitively designed to create firmness, commodity & delight as noted in the original Building Beautiful Commission. Care needs to be taken that a pursuit of low form factors and low carbon design does not create grid-type masterplans.</p> <p>Hill Residential Ltd would support this statement and believe that the policy should allow for this flexibility provided that suitable evidence is provided with the application.</p> <p>This is particularly true in the case of non-residential development. The range of non-residential use classes results in different energy demand profiles, differences in applicable energy efficiency, as well as different viability cases for reducing emissions.</p> <p>Table 6 (Summary of NZC2(B) requirements), sets out the requirements of this policy for residential and non-residential development. However, currently the required improvement on the baseline only makes reference to feasibility. To ensure there is clarity with respect to flexibility with respect of both residential and non-residential development, Hill Residential</p>	
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		<p>Ltd request that a paragraph is included to be clearer around there being potential restrictions to going beyond the minimum requirements which may relate to the nature of the development and design.</p> <p><i>Paragraph insert (5.2) – In addition to the feasibility and viability of providing additional renewable, zero and low carbon energy technologies there may be instances where the nature of the development and design restrictions may limit the installation of additional technologies. For example, development of housing in heritage areas, or where they need to respect local heritage may be limited in the provision of additional Solar PV due to their visual impact. Similarly, the nature of some development gives rise to unique energy and occupation profiles (such as schools) which may impact on their ability to deploy more renewable energy technologies. Where it is not feasible to meet the applicable targets, proposals must demonstrate that carbon reductions have been pursued where viable and subject to the nature of development and design.</i></p> <p>As per the text in the Policy Table 6 should also be updated to make reference to feasibility, viability type of development and design. The following text is recommended – <i>100% where feasible and viable, having regard to the type of development and design.</i></p> <p>Pages 35 to 49 provide guidance on the potential suitability and applicability of various low carbon renewable energy technologies. While Hill Residential Ltd broadly agree with the technologies set out and applicability noted there are some comments below.</p>	<p>Comments noted. We believe that this chapter makes it clear to the considerations in employing low or zero carbon technologies in development and paragraph 3.22 makes it clear what information should be included in an Energy Statement.</p> <p>Notwithstanding this, proposed modifications have been made in the introductory paragraph and to some specific tables where the changes were deemed necessary in response to these comments – please see table of modifications in the appendix.</p>
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		<p>Air Source Heat Pumps – The Governments 2019 FHS notes that ASHPs are likely to be key in achieving significant reductions in carbon emissions. Hill Residential Ltd agrees with the guidance on ASHPs, however it is noted that where hot water is being provided by the heat pump there will be a requirement for the installation of a hot water tank to store hot water. This needs to be included in the ‘Location and Space Requirements’ section, as well as cross referenced in the Domestic hot water storage section.</p> <p>Ground Source Heat Pumps – It is noted that the guidance states the suitability and applicability of GSHPs and WSHPs is not as widespread as ASHPs due to specific requirements of those technologies. It is very likely that these technologies are not suitable for low residential development for this reason, indeed opportunities are likely to be limited to high density mixed use buildings, or non-residential development where there is sufficient heat demand to justify additional space requirements and costs. Hill Residential Ltd request that the suitability/applicability section is updated to reflect this.</p> <p><i>Proposed text - The suitability and applicability of GSHPs and WSHPs is not as widespread as of ASHPs because they both require specific settings to be feasible. Their use is likely to be restricted to, high density mixed use buildings, or non-residential uses where there is sufficient heat demand to justify additional space requirements and costs.</i></p> <p>Domestic hot water storage – As above this section needs to be updated to include reference to the use of hot water storage in conjunction with heat pumps.</p>	
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		<p>Furthermore, the guidance notes that CHP systems supplied with gas should be avoided, from 2025 in line with the FHS Hill Residential Ltd believe that no gas fired CHP systems should be brought forward.</p> <p>Hill Residential Ltd consider that the suitability and applicability of CHP systems is likely to be restricted to non-residential development where there is a large heat and electricity demand. Homes and buildings built out in accordance with Policy NZC1 will not have sufficient heat demand to warrant the infrastructure costs associated with this type of system. In this context the Suitability/applicability text should be updated to include – <i>Best suited to non-residential development where there is a high heat and electricity demand.</i></p> <p>Biomass – The guidance sets out that biomass systems can be retrofitted to existing buildings, installed in centralised energy centres or part of a district wide system. While it is noted this type of technology is unlikely to be suitable for schemes in urban areas, Hill Residential Ltd would add that this technology is not going to be suitable for homes, or development with low heating demand due to increased costs, space requirements, as well as air quality issues. Furthermore there are concerns with regards to the sustainability of using biomass at a time when we are aiming to protect and increase forest areas to improve biodiversity and reduce atmospheric carbon dioxide.</p> <p>Wind – While wind energy systems may be applicable in some specific circumstances it is unlikely it would be suitable in new residential or non-residential developments. A range of planning, visual impact and environmental barriers to wind</p>	
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		<p>development pose significant feasibility and viability issues. While the guidance notes that building-integrated turbines can be used evidence, including the Warwick Wind Trials in 2009 noted that building-integrated systems are generally not suitable. It is likely that wind turbines will only be feasible in specific scenarios, for example built alongside development and connected via a private wire connection. Hill Residential Ltd would recommend that the suitability/applicability text is updated to remove reference to building integrated turbines.</p> <p>District Heating and Cooling Networks – There are a number of challenges with delivering heat networks which affect the feasibility and viability of these systems, including how they could impact on energy bills.</p> <p>Paragraph 5.6 states that district heating is ‘energy source agnostic’. While there are a number of options for heat sources for heat networks they are not energy source agnostic. Different heat generators generate heat at different temperatures, for example heat pumps would operate at a lower temperature than a biomass system, this is important as buildings which plug into the system may have different requirements, this is noted in Paragraph 5.7.</p> <p>Paragraph 5.9 notes that new development should, ‘maximise appropriate opportunities to address the energy needs of neighbouring uses and should link to existing or planned local networks.’ It is agreed that new development should, where possible, support the decarbonisation of energy networks, however, it is not the role of new development to address the energy needs of neighbouring development. Furthermore, connection to existing or planned networks should be subject</p>	
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		<p>to the feasibility, suitability and viability of doing so. For example, networks should only be connected to if:</p> <ul style="list-style-type: none"> • It would provide a lower carbon solution than those available; • It would not impact on fuel security, and it would reduce energy costs; <p>In this context this part of the guidance does not take sufficient consideration of the constraints to connecting to a network. Hill Residential Ltd request that Paragraph 5.9 is re-worded:</p> <p><i>2.59 Para 5.9 re worded - As per Warwick Local Plan Policy CC2-Planning for Renewable Energy and Low Carbon Generation (point 'e') where possible, homes and buildings should consider connecting to existing or planned local carbon district heat network, where this would provide a lower carbon solution than those available, and would not impact on fuel security and it would reduce energy and running costs.</i></p> <p>Paragraph 5.10 notes that town centres or larger new-build masterplans are ideal locations due to the range of use classes and high energy density. As the FHS is implemented, and standards for non-residential development also progress energy density will reduce significantly, this will likely impact on the feasibility and viability of heat networks.</p> <p>In addition, Paragraph 5.10 states, 'Heat networks can be beneficial in rural, off gas areas where homes are reliant on more volatile energy sources'. However, there are significant costs associated with installing heat networks and it is unlikely that in both suburban and rural areas where longer pipe runs are required, a heat network would ultimately be viable.</p>	
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		<p>networks need to be compared against the requirements of the FHS which will likely already include the provision of a heat pump and solar PV. This will reduce heat demand and also limit potential efficiency and carbon improvements from a district system which utilises direct electric systems as a backup and requires significant energy demand to pump fluid through the system.</p> <p>In this context Hill Residential Ltd consider that the provision of heat networks in new development is unlikely to be feasible and viable or offer significant carbon benefits which out way the capital cost of the system compared to alternative options for homes which meet the FHS. In addition, potential restrictions placed on residents by the nature of heat networks and lack of current sector regulation poses cost risks for residents.</p> <p>Hill Residential Ltd request that Paragraph 5.13 is amended as below.</p> <p><i>As per NZC2(B) of the Net Zero Carbon DPD, where DH networks are proposed, applications should be accompanied by an energy statement that includes an assessment of the advantages of a network system vs individual systems, an accurate assessment of distribution heat losses, a long term strategy for the sustainable supply of low carbon fuel and that the network has a credible route towards achieving zero carbon status. The provision of heat networks should provide a lower carbon solution than alternative options available; and should not impact on fuel security and reduce energy costs for residents or building operators.</i></p>	
Paul White (Turley)-Representation on behalf of Hill	Policy NZC2(C): Carbon Offsetting	Hill Residential Ltd believe that the district should utilise the Governments FHS 2025 as the principal metric to implement net zero ready carbon dwellings. Notwithstanding the fact	General comments note.

<p>Residential Development Ltd in respect of their land interests within the Warwick DC</p>		<p>that a local carbon offsetting policy must be fully viability tested, carbon savings must also be independently verified and audited to ensure they meet the technical requirements of carbon offsets. The UKGBC Carbon Offsetting and Pricing Guidance provide guidance on how to disclose carbon offsetting, Hill Residential Ltd would recommend this is used to ensure the carbon offsetting carried out by the Council is transparent and verifiable.</p> <p>Hill Residential Ltd would note that the suite of net zero policies make allowance for the consideration of feasibility and viability when minimising emissions through the use of the energy hierarchy. As set out this also needs to consider the nature of development and design. In that context it is recommended that Paragraph 6.2 is updated to take this into account.</p> <p><i>Paragraph 6.2 amendment</i> - Carbon offsetting should only be used as a last resort, and only when an applicant has maximised on site carbon reductions through stages 1 and 2 of the energy hierarchy. The Council will only accept offsetting where it is demonstrated that measures under NZC2(A) and NZC2(B) are not feasible, or viable, having regard to the design, and type of development involved. This should be demonstrated within the Energy Statement and justification provided where Policies NZC2(A), NZC2(B) and on-site net zero regulated carbon is not achieved.</p> <p>Hill Residential Ltd support the Council's methodology set out in Policy NZC2(C) which allows the calculation of offsetting to take into account future carbon factors, this allows an accurate estimate of residual emissions which will change over time as the electricity network decarbonises. However,</p>	<p>The viability of the NZC DPD, including offsetting payments, has been robustly examined by the Inspector during the plans' examination, and such is not the focus of this SPD consultation as the SPD's guidance does not change or amend the NZC DPD's policies.</p> <p>See proposed modifications.</p>
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		<p>Hill Residential Ltd believe further clarity is needed in this section to link to the assessment Energy Proforma included in Annex 1. In the Proforma two calculation methodologies for 'static' and 'dynamic' offsetting. The difference appears to be that the dynamic offsetting methodology is used in the case of an all-electric development. These two routes to compliance are not included in this section of the SPD, it is recommended that a paragraph is added in to set out the difference between these routes. Hill Residential Ltd would also note that in meeting the requirements of the Net Zero policies it is likely that most development will be all-electric, in this context it would be better to set out the dynamic methodology as the primary route to compliance in the Proforma, rather than the secondary option.</p> <p>In addition, it is recommended that consideration is given to the potential opportunities associated with developments such as Hatton New Settlement which could include large scale on-site renewable energy generation, linked to buildings or as part of the sites infrastructure, for example Solar PV, mini-grids. The development could also include carbon sequestration. It is recommended that the SPD makes an allowance for this to be included as part of the carbon reduction strategy for the development. These alternative opportunities could be part of wider design initiatives which provide other social, environmental and economic benefits. These could be an extension of the alternative offsetting solutions allowed, with greater flexibility allowed where measures are put in place within the development boundary.</p> <p><i>Paragraph insert</i> - Where carbon reduction measures are incorporated into the development, and are within the boundary of the site, the Council will give consideration to the</p>	<p>Comments Noted. Whilst the Council hopes that development is planned holistically and other measures to reduce carbon are employed in developments, e.g. woodland creation, biodiversity improvements or habitat restoration, it is not possible to demonstrate these within the policy requirements. Please note that any offsetting not delivered through the cash in lieu contribution should be agreed with the council, we therefore welcome engagement with developers on this matter in the future.</p>
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		<p><i>contribution this makes to meeting the requirements of Policy NZC1. For example this could include the contribution delivered through additional on-site renewable energy generation or carbon sequestration delivered through green infrastructure.</i></p>	
<p>Paul White (Turley)- Representation on behalf of Hill Residential Development Ltd in respect of their land interests within the Warwick DC</p>	<p>Policy NZC3 – Embodied Carbon</p>	<p>Hill Residential Ltd supports the consideration of embodied carbon as part of the design process. Embodied carbon is likely to be a significant proportion of a developments lifetime emissions, particularly as operational emissions reduce as a result of Policy NZC1.</p> <p>Table 19 sets out the requirements for new major development and development of over 50homes or 5,000sqm. This includes demonstrating how embodied carbon has been considered and reduced where possible, via an Energy Statement for major development and Whole Life Cycle Assessment for super major development.</p> <p>Hill Residential Ltd supports the difference in requirements for major and super major development, however consideration also needs to be given to the availability of information for both outline and reserved matters / detailed applications. It is likely that for outline applications limited information will be available on the detailed design of development. In this context development proposals may only be able to reflect back the principles of low carbon design noted in the guidance document.</p> <p>It is noted that larger scale developments which are built out over a number of years should consider potential industry benchmarks, such as the RIBA 2030 Climate Challenge to guide future reductions in embodied carbon.</p>	<p>Support noted. Please see proposed modifications to Table 19</p>

In this context it is recommend that Table 19 is updated to include consideration of the nature of applications.

Table 19 – Recommended update

Threshold	Requirement – Outline applications	Requirement – Reserved Matters / Detailed applications	To be submitted
New major development	Set out the embodied carbon strategy for the development, where relevant setting out methodology and targets to be considered at the detailed design stage.	Demonstration of how embodied carbon has been considered and reduced where possible	Energy Statement
Proposals for development of ≥50 new dwellings and/or ≥5,000sqm	Set out the embodied carbon strategy for the development, setting out methodology	Demonstration of how embodied carbon has been accounted for and reduced	Whole-life embodied

			and targets to be considered at the detailed design stage. Provide an estimate of the embodied carbon of the proposed development utilising the RICS Whole Life Carbon Assessment methodology.	where possible.		
Michael Burrow (Savills) on behalf of Crest Nicholson Partnerships and strategic Land	Section 3		<p>Section 3 of the draft WNZC SPD includes several references to the requirements being equivalent to the carbon reduction anticipated to be achieved by the Future Homes Standard. The draft WNZC SPD does not however state what would happen to the provisions within the WNZC DPD and WNZC SPD when the Future Homes Standard is introduced in the future. In order to future-proof the application of the WNZC SPD, Crest Nicholson is therefore seeking for the WNZC SPD to clearly state that which aspects of the WNZC DPD and WNZC SPD are anticipated to be superseded or amended by the introduction of the Future Homes Standard, or alternative national equivalent, and the implications of such changes.</p> <p>Crest Nicholson notes that an example case study is included in the draft WNZC SPD Page 12- Para 3.11) of a social housing</p>			<p>General comments noted.</p> <p>The carbon emission reductions sought by NZC1 for residential dwellings were set to reflect the FHS, but are not dependant on this being implemented as the policies require a % reduction of carbon emissions against 2021 building regulations.</p> <p>New development in the district would be expected to meet the requirements of the NZC policies, and building</p>

		<p>project comprising 54 dwellings on Europa Way/North of Gallows Hill, Warwick which achieved a reduction on Part L 2013 of a magnitude which exceeds the minimum on-site requirement being sought by WNZC DPD Policy NZC1 through the use of air-source heat pumps, fabric improvements and solar panels. This example demonstrates that such a reduction is achievable. However the information made available is insufficient to explain how the site-specific and proposal-specific circumstances enabled such a scheme to be delivered viably in this instance. The demonstration of viability (including land value, profit, grant funding etc) through the information supporting the draft WNZC SPD is of fundamental importance in enabling housebuilders such as Crest Nicholson to understand the application and relevance of the case study to the deliverability of proposals for additional housing development on other sites in the District.</p> <p>In terms of assisting with the implementation of WNZC DPD Policy NZC1, Crest Nicholson requests that the explanatory text for the as-built calculations included within the draft WNZC SPD (Page 16, Para 3.28) sets out what the process would be for addressing any differences between the as-built calculations and the calculations submitted with the planning application. The suggestion given later in the draft WNZC SPD3 is that any such difference will be addressed through carbon offsetting contributions, but further clarification is required in relation to this point.</p> <p>Crest Nicholson will be introducing heat pumps in its <i>new</i> (Developments which do not benefit from, and are not being constructed by Crest Nicholson under, planning permissions granted prior to the Warwick Net Zero Carbon DPD being adopted) developments in Warwick District going forward.</p>	<p>regulations applicable to development at the time. This may result in a situation where the DPD's policies are superseded and such development will be built to a higher standard to comply with Building Regulations, or in the event that building regulations have a lower standard, the DPD's policies will require that buildings meet a higher standard and reduce carbon emissions against the baseline of current building regulations.</p>
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		<p>Crest Nicholson welcomes the fact that the draft WNZC SPD includes details on a range of technologies which might be applied in new developments, if deemed to be suitable, viable and necessary to meet the required targets. However to avoid ambiguity in the application of the WNZC SPD Crest Nicholson requests that the WNZC SPD makes it explicitly clear that connecting into District Heating and Cooling systems is only one of a range of available options for consideration in the energy reporting work submitted with planning application proposals and is not an absolute requirement, even where heat pumps are fitted to homes which are being constructed in new developments.</p>	
<p>Michael Burrow (Savills) on behalf of Crest Nicholson Partnerships and strategic Land</p>	<p>Section 6</p>	<p>It is noted that Policy NZC2(C) specifies that the carbon offset price applied to any offsetting fund contribution is <i>“the central figure from the nationally recognised non-traded valuation of carbon, updated annually as part of the Treasury Green Book data by BEIS”</i>.(Page 51) A hyperlink is provided within the draft WNZC SPD to current BEIS Green Book pricing.</p> <p>However, Treasury Gren Book data provided by BEIS is central government guidance on cost-benefit analysis for use in national policymaking. The carbon valuations have neither been developed to provide a market price for carbon, nor to indicate the cost of any particular offsetting approach. Crucially, they represent a predicted marginal abatement cost of carbon reduction measures (of the type already required of developments by the hierarchy approach described in the draft WNZC SPD), and not the cost of carbon offsetting through measures such as tree planting.</p> <p>The mitigation scheme specifically mentioned in the WNZC SPD is the Warwick Carbon Offsetting Fund. The draft WNZC SPD states that the Warwick District Council (WDC) prioritised</p>	<p>Comments noted. NZC2C outlines that the carbon offsetting fund will be administered against a range of projects at the same average cost and this is repeated in paragraph 6.9.</p>

		<p>method of carbon offsetting is through tree planting (Page 52, Para 6.8), albeit the draft WNZC SPD does not state where the monies received will be spent or whether the monies will be spent on projects other than tree planting as well. Crest Nicholson requests that this clarification is provided. Notwithstanding this, and broadly speaking, it should be recognised that the market cost of tree-planting carbon offsets in the UK is an order of magnitude lower than the Green Book values for the marginal cost of carbon reduction.</p> <p>The 2022 GLA guidance on carbon offset pricing for development projects specifies a sum of £95/tonne fixed for 30 years, which is less than half of the 2023 Green Book marginal abatement cost values proposed to be used by the WNZC SPD, and which does not increase year on year. The GLA guidance was developed after extensive advice was received and research was undertaken both on the cost of offsets and the impacts on development viability. It should be noted that it has not been demonstrated through either the draft WNZC SPD or in any supporting documentation to the draft WNZC SPD that the GLA guidance is applicable to Warwick District. However the GLA guidance does demonstrate that an equivalent approach adopted elsewhere for addressing this issue has resulted in a significantly lower cost than would result from the application of the 2023 Green Book approach being deemed to be suitable and deliverable.</p> <p>Nevertheless the property London market is not the same as the property market in Warwick District and land and property values will therefore be very different. The National Planning Policy Framework (NPPF) (September 2023-Page 11 Para 34, makes it clear that Local Plans should set out the contributions expected from development and that such</p>	
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		<p>policies should not undermine the deliverability of the Local Plan. There is therefore still a need for robust testing through viability appraisal work for any offsetting contribution costs applied to Warwick District through this WNZC SPD, whether these costs are BEIS costs, GLA costs, or an alternative cost identified, in order to ensure that these costs do not ultimately prevent the delivery of development on viability grounds. This is particularly relevant for development coming forward on sites which were allocated in the current Warwick Local Plan prior to the Warwick Net Zero Carbon DPD (WNZC DPD) being produced and therefore without the opportunity for the implications of the WNZC DPD to be taken into account as part of the viability testing at that time. The draft WNZC SPD is not accompanied by further viability testing work.</p> <p>A further consideration is that the Green Book values are projected year by year, rather than offering a fixed value. It is not clear in the WNZC SPD whether a particular single year's value should be applied for a development project, or changing values over a thirty year time period. In the latter case, as the values are regularly updated by BEIS, it is not clear that it would be appropriate to use speculative future-year values at a single point in time when an offsetting fund contribution is required. In any case, the Green Book values (ending at 2050) do not actually provide thirty years' worth of figures as required by the policy in the WNZC SPD.</p> <p>As set out above, Crest Nicholson therefore does not consider that the Green Book values are suitable for calculating carbon offset fund contributions. However if these figures are ultimately applied in this way, as a result of robust demonstration that they are suitable, appropriate and viable in a Warwick District context, then</p>	
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		<p>the WNZC SPD should clarify (in Annex 1) that a single-year value should be applied to the total offset sum, for the present year at the time of making the offset contribution. It is also noted from the draft SPD that the use of a verified local off-site offsetting scheme, in addition to or instead of the Warwick Carbon Offsetting Fund, will need to meet the Warwickshire ecosystem service market trading protocol. Whilst reference is made in the draft WNZC SPD (Page 52-Para 6.7) to the existence of the Warwickshire Environmental Services Trading Protocol (WESTP), very little information is presented in the draft WNZC SPD in relation to WESTP, no hyperlinks are provided to WESTP and there is no obvious website setting out details for how WESTP operates. Crest Nicholson is therefore seeking clarification on WESTP because this information is required in order for the provisions within the WNZC SPD to be demonstrated to be deliverable.</p>	
<p>Michael Burrow (Savills) on behalf of Crest Nicholson Partnerships and strategic Land</p>	<p>Section 7</p>	<p>It is also noted that the WNZC SPD introduces further guidance to support the introduction of the submission of Embodied Carbon Assessments, further to requirements set out in Policy NZC3 of the emerging Warwick Net Zero Carbon DPD (WNZC DPD). Embodied Carbon Assessments are still an emerging area of practice. There is therefore a need to ensure that the Embodied Carbon Assessment requirement is clear, deliverable and implementable.</p> <p>There is no standard definition of "embodied carbon" in planning legislation or policy. However, it is generally understood to mean the greenhouse gas emissions associated with the supply chain for producing and transporting materials used. This is in line with the definition used in the RICS and other guidance cited. Embodied carbon is, however, only one aspect of a whole-life carbon assessment, which also includes the on-site works to construct a building (and</p>	<p>General comments noted.</p> <p>We believe that the distinction between embodied carbon and whole life assessments between major and super major developments is clear in this chapter.</p> <p>The SPD cannot change NZC DPD policies - these have been subject to various rounds of consultation and public examination by the Inspectorate.</p>

		<p>depending on the scope of the assessment, also demolishing a building at the end of its life), maintenance/refurbishment, and operational performance.</p> <p>Crest Nicholson considers that the policy title and wording should be amended to be clear that the scope of “embodied carbon” assessment is differentiated from a “whole life carbon assessment”, to avoid confusion over these terms (and hence the scope of assessments) and to avoid any seeming contradiction of the guidance cited. Similarly, to avoid any confusion of terms and the scope of documents to support planning applications, Crest Nicholson suggests that the wording and associated guidance for Policy NZC3 on page 55 should make it clear that a “whole life carbon” statement is required, to avoid confusion over the use of “energy statement” with the operational energy assessment required under policy NZC2.</p> <p>At a national level, there is no specific requirement for embodied carbon to be addressed in planning policies or planning decision-making. Embodied carbon does not feature within either the Planning Practice Guidance (PPG) or the NPPF. Any local requirements for the sustainability of buildings are required to reflect Government policy and the requirements of the NPPF.</p> <p>The SPD notes that there is Greater London Authority Whole Life-Cycle Carbon Assessment guidance, UKGBC guidance, a RICS Whole Life Carbon Assessment for the Built Environment methodology, BS15978, Environmental Product Declarations, University of Bath ICE database, Built Environment Carbon Database, Institution of Structural Engineers ‘How to Calculate Embodied Carbon for Construction Materials’ guidance, RICS</p>	<p>Flexibility on the methodology for whole life embodied carbon is provided in paragraph 7.17.</p>
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		<p>methodology to calculate embodied carbon of materials, LETI Climate Emergency Design Guidance and RIBA 2030 Climate Challenge voluntary targets.</p> <p>There is however no single accepted national standard for assessing whole-life embodied carbon as part of the planning process. The application of the above mentioned guidance and methodologies in a Warwick District context has also not been tested through the WNZC DPD consultation process and is not set out within any supporting evidence base documentation for either the WNZC DPD or the WNZC SPD. Recognition should also be given to the fact that guidance and methodologies change over time and get updated. In this regard the WNZC SPD should not be requiring new developments to achieve particular standards set out within guidance documents which have not been produced for, or tested in the context of, Warwick District.</p> <p>The statement within paragraph 7.22 of the SPD which states that applications subject to Policy NZC3 are not required to meet specific embodied carbon emissions targets is therefore considered to be appropriate. In this regard it is important that the suggested targets set out within Table 21 of the WNZC SPD consultation document, based on the RIBA Climate Challenge targets, are only treated as a reference point rather than as a requirement. The WNZC SPD should accordingly make it clear that in advance of a nationally accepted standard enshrined in national or local planning policy planning applications will not be deemed to be unacceptable if these suggested targets are not met.</p> <p>Whilst the WNZC SPD references a raft of different documentation and guidance (as identified above) it is not</p>	
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		<p>explicitly clear on the structure and methodology to be applied to the production of whole life embodied carbon assessments for submission with major or ‘super major’ planning applications in Warwick District, including where specific carbon factors are not available for materials and products (as mentioned within WNZC SPD paragraph 7.19) and how the use of ‘life cycle assessment’ calculations and other industry certifications / approaches (as mentioned within WNZC SPD paragraph 7.12) fit into the process.</p> <p>The requirements of Policy NZC3 would therefore be more straight forward to implement if the WNZC SPD sets out a single clear and concise methodology to follow. It therefore requested that this is included within the WNZC SPD. This could potentially be the GLA guidance/methodology, on the basis that this is a tested approach, if it is demonstrated that this is applicable to Warwick District.</p> <p>This should also recognise that it is not always appropriate or possible to replace materials with high embodied carbon, such as concrete / cement, steel and glass, as listed within WNZC SPD paragraph 7.8, with lower impact alternatives in constructing new housing developments whilst also meeting the aspirations of the design agenda to create high quality and attractive places and addressing the preferences / demands of consumers. There is still a need to educate consumers on the properties and performance of materials and the wider whole life-cycle assessment process.</p> <p>The “materials pyramid” included in WNZC SPD Figure 8 is a helpful reference diagram in this regard. The LETI Embodied Carbon Primer adds more context to the materials pyramid. Nevertheless Crest Nicholson considers that the WNZC SPD</p>	
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		should embrace a flexible approach to: enable the design of developments and use of materials to be appropriate to the context; and reflect the cost, availability or practicality of substituting these materials, whilst also encouraging innovation in the approach taken.	
Jacob Bonehill (RPS) on behalf of Taylor Wimpey	General Comment	<p>Fundamentally, RPS considers the consultation on the Supplementary Planning Document ('SPD') is premature for several reasons. Firstly, the consultation on the main modifications to the Net Zero Carbon Development Plan Document (DPD) has already taken place, but the Inspector's report has not yet been received, and the DPD has not yet been adopted. This means that the Council is consulting on the SPD without the full knowledge of the implications of the DPD and the Council has assumed that the outcomes of the Inspector's Report will remain unchanged to the Main Modifications consultation. At this time this cannot be guaranteed.</p> <p>The SPD relies on the Warwickshire Ecosystem Trading Protocol (WESTP) and the Warwickshire, Coventry, and Solihull Green Infrastructure Strategy for carbon offsetting. However, neither of these documents has been finalised or adopted. The Council's response to the main modifications' consultation responses indicated that both documents would be consulted on in August/September 2023. However, to date, this consultation has not taken place. This suggests that the consultation on the SPD is premature and that the Council is seeking to implement carbon offsetting measures without adequate consideration of the relevant policies and strategies.</p> <p>In light of these concerns, it is recommended that the consultation on this SPD be postponed or rescheduled, until the Inspector's report on the DPD has been received and the</p>	<p>General comments noted.</p> <p>We acknowledge that the Council has not yet received the Inspector's report however throughout the examination process the Inspector expressed the need for a SPD to support the DPD's policies and the Council has implemented this request without delay. The Council feels that having the SPD ready to adopt at the same time as the DPD (pending the examination from Inspector) would be the most sensible approach to ensuring applicants and decision makers have detailed guidance on this technical topic.</p> <p>As noted previously, paragraph 6.9 provides flexibility on how the offsetting fund will be spent in the event that the measures under the WESTP be delayed or amended.</p>

		WESTP and Green Infrastructure Strategy have been finalised and adopted. This will ensure that the consultation is conducted on an informed basis. Indeed, Planning Practice Guidance [Paragraph: 008 Reference ID: 61-008-20190315] confirms SPDs should build upon and provide more detailed advice or guidance on policies in an adopted local plan. (Emphasis added)	
Jacob Bonehill (RPS) on behalf of Taylor Wimpey	Policy NZC1- Achieving Net Zero Carbon Development	<p>Policy NZC1 remains largely the same following the DPD examination, despite representations submitted on behalf of TW to the Regulation 19 consultation, the Council is persisting with the intention to interpret an enhanced standard (63% reduction from now) in advance of the Government’s current proposals to introduce the Future Homes Standard, which seeks to achieve the same 63% betterment from 2025 onwards.</p> <p>RPS maintains the view that no evidence has been provided that clearly sets out the local circumstances that justify an enhanced standard being the interpreted justification within the District prior to the implementation of changes to Building Regulations expected in 2025. In the Regulation 19 response, RPS presented a number of concerns that highlighted the potential risks to housing delivery as a result of a faster implementation of the national standards. The issues RPS highlighted were:</p> <ul style="list-style-type: none"> • an inadequate supply of such technologies that will be required to achieve the proposed 63% reduction due to immaturity of the supply chain for systems, such as air and ground source heat pumps. • the need to reinforce the electricity networks to accommodate the additional loads that the usage of such technologies require. 	This SPD cannot make changes to Policy NZC1 as it is not within the remit of the consultation of this SPD to do so. The DPD policies have been subject to various rounds of consultations and a public examination.

		<ul style="list-style-type: none"> • increased demand for electricity arising from the installation of electric vehicle charging points, which are already required under policy TR1 of the Council’s adopted Local Plan. <p>To reiterate what RPS has stated previously, there is no clear timetable at a national level for when the infrastructure improvements needed to increase capacity in the electricity network will be secured, or when the supply chain will be developed to a sufficient scale to support the transition to a zero-carbon economy. This will take time to deliver, and until these changes occur the proposed policy risks delaying the delivery of much needed new homes.</p>	
Jacob Bonehill (RPS) on behalf of Taylor Wimpey	Section 3.26	<p>RPS considers the 20% sample size to be unnecessarily high. Instead, it would be appropriate to test the range of house types proposed. Additionally, the current approach of testing every possible orientation is not practical or necessary. RPS suggests considering alternative methods, such as testing orientations on a 4-compass point basis (North, East, etc.) to capture the impact of solar gain without being overly burdensome.</p> <p>RPS's proposed alternative approach has several advantages:</p> <ul style="list-style-type: none"> • Reduced testing requirements: By testing on a 4-compass point basis, the number of homes that need to be assessed is significantly reduced, making the process more efficient and cost-effective. • Representation of a wider range of orientations: While not testing every possible orientation, the 4-compass point approach still captures the variability in solar gain across different directions, ensuring that the results are representative of the entire development. • Flexibility to adjust testing based on site-specific conditions: The proposed approach allows for flexibility in adjusting the number of orientations tested depending on the size and complexity of the site. 	The 20% sample size relates to the type of dwellings or buildings being provided in a development as clarified in footnote 12, not specifically the orientation of the building.

		Overall, RPS recommends adopting a more flexible and efficient approach to testing orientations for carbon emissions calculations. The 4-compass point method offers a practical solution that balances the need for accurate representation with reduced testing requirements.	
Jacob Bonehill (RPS) on behalf of Taylor Wimpey	Section 3.28	<p>We acknowledge the importance of ensuring that new developments meet the energy efficiency standards set out in the Net Zero Carbon Development Plan Document (DPD). However, we have concerns about the practicality and reasonableness of requiring an as-built recalculation pre-occupation, particularly given the onerous nature of the specified requirements.</p> <p>The requirement for an as-built recalculation, as outlined in the consultation document, appears to be duplicative of the information already collected for building regulations compliance.</p> <p>We would recommend an alternative approach that would streamline the process and avoid unnecessary delays in occupation. Instead of mandating a full as-built recalculation, we suggest requiring the submission of a formal confirmation from the building surveyor that the building complies with the energy efficiency standards set out in the DPD.</p>	General comments noted. The DPD and SPD outline the calculations needed prior to occupation, this is to ensure that the performance gap between the buildings design and as constructed in minimised, and where there is a difference, this is reflected in offsetting payments. This is needed to ensure the policy is effective in lowering carbon emissions from development in line with the requirements of the NZC1.
Jacob Bonehill (RPS) on behalf of Taylor Wimpey	Policy NZC2 (C)- Carbon Offsetting- 1 st bullet point	The policy retains the reference to payment of ‘cash in lieu’ contribution to the District Council’s carbon offsetting fund. Contributions would be secured via a Section 106 agreement to be paid prior to occupation of the development. However, as before through the DPD, the policy makes no reference to circumstances that might transpire that may result in contributions remaining unspent over a considerable number of years. It is normal practice for legal agreements to specify	This would be covered by the S106 agreement in place for that development.

		time limits or other clauses that can lead to repayment of contributions back to applicants (or successors) if not spent within a certain time period and / or by a certain date. No reference to time limits for the utilisation of financial contributions is included in the policy as drafted. Without clarification, the contribution could be held indefinitely for no good reason, this risks contributions being no longer directly related to the development for which they were collected, which would be a breach of Regulation 122 (2)(b) of the Community Infrastructure Levy Regulations 2010 (as amended).	
Jacob Bonehill (RPS) on behalf of Taylor Wimpey	Section 6.7	The SPD in section 6.7 states that Warwickshire County Council has prepared the Warwickshire Environmental Services Trading Protocol (WESTP). The WESTP will outline the nature-based solutions available to compensate for development and establishes the principles and rules for the creation, enhancement, and maintenance of habitats by landowners to be traded as compensation units. However, the WESTP has not yet been formally consulted on by Warwickshire County Council (WCC), despite an initial target of consultation in the summer of 2023. This reliance on the WESTP in advance of public engagement is concerning, as the SPD is relying on the WESTP prior to it being subject to public scrutiny.	Paragraph 6.9 provides flexibility on how the offsetting fund will be spent in the event that the measures under the WESTP be delayed or amended
Jacob Bonehill (RPS) on behalf of Taylor Wimpey	Section 6.9	While the Council's intention to expand the scope of its carbon offset fund to include other forms of carbon offsetting, such as habitat creation/restoration, retrofitting of council owned buildings, and renewable energy provision, is commendable, it is crucial to carefully consider the challenges associated with demonstrating the effectiveness of these offsetting measures.	General comments noted. NZC2C outlines that the funds performance will be reported in the Annual Monitoring Report with information on the funds spent, projects funded, and the amount of CO2 saved. The Council

		<p>One of the primary challenges lies in establishing a clear causal link between the carbon emissions being offset and the carbon savings achieved through the funded projects. This is particularly true for projects like habitat creation/restoration and retrofitting, where the environmental benefits may not be immediately quantifiable or may take years to fully materialise. In the case of habitat creation/restoration, for instance, accurately measuring the carbon sequestration capacity of newly created or restored habitats requires long-term monitoring and assessment. Similarly, evaluating the energy savings and carbon emission reductions from retrofitting projects necessitates ongoing data collection and analysis. The difficulty in establishing a direct correlation between offsetting funds and carbon savings poses a significant hurdle in demonstrating that the carbon emissions saved relate exactly to those which are being offset. We suggest that instead of ‘exactly’ the requirement should be “that there is reasonable evidence to assume that the carbon emissions relate to those which are being offset”.</p> <p>In addition, there are significant difficulties with demonstrating that funding cannot be secured from other sources or grants, particularly given the growing importance of such projects and regular announcements of new funding sources. We suggest that the Council should maintain a list of potential funding sources to direct the promoters of projects to. Furthermore, the Council should set out clearly what is suitable evidence that funding cannot be secured from other sources to assist the promoters of such projects.</p>	<p>appreciate that its vital that this information be transparent to ensure the fund is spent correctly.</p>
Jacob Bonehill (RPS) on behalf of Taylor Wimpey	Section 6.10	While the inclusion of a mechanism for applicants to offset residual carbon emissions through a verified offsetting scheme in NZC2(C) is a welcome step, the requirement for	The securitisation of nature-based solutions for 100 years is a rule outlined in the WESTP.

		<p>offsetting schemes to comply with the Warwickshire Ecosystem Trading Protocol (WESTP) raises concerns given the lack of public consultation on this protocol.</p> <p>The WESTP, which outlines the principles and rules for the creation, enhancement, and maintenance of habitats to be traded as compensation units, has not yet undergone a formal consultation process.</p> <p>Furthermore, it is indicated that for nature based solutions there is an expectation that offset schemes should be created and maintained for a period of 100 years. No justification is given for this. It is noted that at paragraph 8.2 of the emerging DPD that carbon offsetting funds are, when required, to be collected on the basis of a 30 year building life span. Similarly, Biodiversity Net Gain is expected to be secured for a 30 year period as set out in the Environment Act 2021.</p> <p>On this basis there is no apparent justification for requesting a minimum 100 year period. Doing so would be in conflict with the Community Infrastructure Levy Regulations 2010 (as amended), specifically Regulation 122 which requires planning obligations to be directly necessary, directly related, and fair and reasonable in scale. To ensure this it is recommended that a 30 year period is utilised, as this is clearly linked to the building life span that is being offset.</p>	
Jacob Bonehill (RPS) on behalf of Taylor Wimpey	Section 6.11	<p>While the intention behind NZC2(C) to promote the use of a verified offsetting scheme, such as the Warwickshire Ecosystem Trading Protocol (WESTP), is understandable, the policy's use of the word "expected" to describe the use of the WESTP could be misinterpreted as a mandatory requirement. This could place unnecessary pressure on applicants and potentially discourage them from pursuing development proposals.</p>	<p>This SPD cannot make changes to Policy NZC2C as it is not within the remit of the consultation of this SPD to do so.</p>

		<p>To align with the more encouraging tone of paragraph 6.10 of the SPD, which emphasises the Council's support for applicants who choose to utilise the WESTP, it is recommended that the language in NZC2(C) be revised to state that applicants are "encouraged" to use the WESTP. This shift in language would better reflect the Council's intention to provide guidance and support for applicants while still allowing them the flexibility to explore alternative offsetting options.</p>	
Jacob Bonehill (RPS) on behalf of Taylor Wimpey	Policy NZC3- Embodies Carbon	<p>Table 19 of Policy NZC3 provides an overview of the development thresholds, respective requirement and how the Council expect this to be submitted. As RPS have suggested previously, the inclusion of an additional policy requesting a separate assessment specifically dealing with embodied carbon is lamentable. The Council already highlights on its validation checklist (for outline, full, and reserved matters applications) the potential for 30 separate reports needed to accompany each application. The need for yet another statement or assessment dealing with embodied carbon is not necessary as this can be dealt with through the Sustainability Statement which is already included on the list of 'additional supporting information' required to accompany residential applications.</p> <p>On this basis, RPS considers that this Table 19 summary could be amended to reflect the possibility of submissions via Sustainability Statements.</p>	Modifications are proposed to Table 19 to clarify what is required at outline and reserved matters stages on major and super major applications – see appendix for proposed modifications.
Jacob Bonehill (RPS) on behalf of Taylor Wimpey	Section 7.22	<p>While the intention behind NZC3 to encourage the consideration of embodied carbon in new developments is commendable, the policy's use of the phrase "should aim to achieve" could be misconstrued as a mandatory requirement.</p>	Policy NZC3 does not include the phrase "should aim to achieve". The policy wording states:

		<p>This could create confusion for applicants and decision makers and potentially discourage applicants from pursuing development proposals.</p> <p>To maintain the policy's encouraging tone, it is recommended that the phrase "should aim to achieve" be revised to "are encouraged to achieve" or "are encouraged to use as a benchmark". This shift in language would better reflect the Council's intention to promote responsible development practices without imposing unrealistic or inflexible targets.</p> <p>Moreover, it is important to recognise that embodied carbon reduction is an evolving field, and best practices are continuously being refined. Therefore, mandating specific targets for embodied carbon emissions could limit the adoption of emerging technologies or methodologies.</p>	<p><i>“New major development should demonstrate in the energy statement or design statement how the embodied carbon of the proposed materials to be used in the development has been considered and reduced where possible, including with regard to the type, life cycle and source of materials to be used.</i></p> <p><i>Proposals for development of 50 or more new dwellings and/or 5,000sqm or more of new non-residential floorspace should be accompanied by a whole-life assessment of the materials used.”</i></p>
<p>Jacob Bonehill (RPS) on behalf of Taylor Wimpey</p>	<p>Annex Part 1A- Residential Dwellings</p>	<p>RPS appreciate the council's efforts to promote energy efficiency and reduce carbon emissions in new developments. However, RPS have concerns about the feasibility and practicality of measuring energy efficiency and carbon offsets at the outline planning stage, particularly given the potential for changes to the development's design, layout, and specifications throughout the planning process.</p> <p>Challenges with Measuring Energy Efficiency at Outline Stage</p>	<p>Paragraph 3.26 & 3.27 outlines what is required for each type of application. We do not consider that including the glazing ratio is excessive in determining what the specification of dwellings would be at outline stage. As detailed in paragraph 3.27, subsequent applications e.g. reserved matters or S73 would</p>

		<p>The proformas provided in Annex Part 1A of the consultation document require detailed information on glazing ratios and other building fabric elements to assess energy efficiency against Building Regulations. However, at the outline planning stage, these details are often unavailable or subject to change as the design evolves. Requiring such specific information at this early stage could lead to inaccurate assessments and unnecessary revisions as the development progresses.</p> <p>To address this issue, we propose a more flexible approach for outline applications. Instead of mandating a comprehensive assessment of energy efficiency at this stage, we suggest focusing on standard housetypes and leaving the calculation of glazing ratios and other detailed elements to the reserved matters stage. This would allow for more accurate assessments based on finalised design details and avoid the need for repeated revisions.</p> <p>Practical Considerations for Carbon Offsetting</p> <p>The consultation document also outlines requirements for offsetting residual carbon emissions. While RPS support the concept of carbon offsetting, we have concerns about the practicality of calculating and committing to offsets at the outline planning stage. At this early stage, the development's final design and energy efficiency measures may not be fully determined, making it challenging to accurately estimate residual emissions and determine the appropriate offsetting requirements.</p> <p>To address these concerns, RPS propose a more flexible approach to carbon offsetting.</p>	<p>need this information to be updated in any event.</p> <p>As per above, carbon offsetting would be calculated again at the reserved matters stage. The S106 that would apply to outline and reserved matters would reflect this.</p> <p>General comments against council resources noted.</p>
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<p>Gemma Honey (Deputy Town Clerk)- Kenilworth Town Council</p>	<p>General comments</p>	<p>Kenilworth Town Council welcomes this document which sits underneath the Net Zero DPD and provides technical guidance on sustainability standards. We urge its rapid adoption and look forward to using it in our assessment of planning applications. However, we believe that to be properly enforceable, measurable standards are needed to be set before developers, rather than hopeful guidance, and we trust the document can be strengthened in this way.</p>	<p>Comments noted.</p>
<p>Gemma Honey (Deputy Town Clerk)- Kenilworth Town Council</p>	<p>Standard of buildings</p>	<p>The purpose of the document is to provide legally enforceable planning guidelines for developers to work within. KTC members do have views on Passivhaus standard for new buildings and these are included here – most feel WDC should positively identify an ambition to trial the Passivhaus standard for new buildings under their control. Many developers will argue this is unachievable using viability assessments, but we need to show even high-end measures are economically feasible. It may in some cases be too rigid a standard and architectural options are restricted, but we must aspire to a target.</p> <p>Fabric First is referenced in the existing buildings section and offers greater flexibility as standards and regulations evolve. Members urge WDC to enforce this for developers to follow. This would raise our standards most rapidly to net zero and in the most cost-effective way. Consumers want homes that in broad terms are highly energy efficient in use with minute energy bills. Solar gain by PVs are essential in the build stage, and everyday equipment in the home should be the only other inputs involved in heating it. We should expect power sockets for electric vehicles and bikes, in-house power storage, such as Tesla Powerwall, solar roof tiles where PV panels are opposed on aesthetic grounds and the reuse of heat from computers.</p>	<p>Comments noted.</p>

Gemma Honey (Deputy Town Clerk)- Kenilworth Town Council	Carbon Offsetting	It is felt that the carbon offsetting section should be reduced in importance. Planting trees has been definitively shown to fall seriously short in reducing carbon emissions. There is a temptation that offsetting can lead to greenwashing when developers use it to appear environmentally responsible without genuinely reducing their emissions. It could be seen as a superficial solution that distracts from making substantive changes in design and construction practices.	Comments noted. The council believe the language used for offsetting is appropriate. NZC3 and paragraph 6.9 of the SPD outline that the offsetting fund can be spent on carbon saving measures, and this will be reported against in the AMR.
Gemma Honey (Deputy Town Clerk)- Kenilworth Town Council	Investment and Management	All members consider it vital that WDC invests the right human resources in enforcing these standards which means officers with the right technical expertise can engage professionally with developers to monitor standards and ensure compliance.	In line with the DPD's adoption, the Council is investing resources in training existing officers and members, and recruitment of specialists who can assess material submitted with planning applications.
Gemma Honey (Deputy Town Clerk)- Kenilworth Town Council	Key points	<ul style="list-style-type: none"> • The need to lower the performance gap between house design and house function – i.e. what a house is supposed to deliver and what it actually does deliver. • the need for the SPD to be agile in respect to the coming Future Homes Standard and not to be time limited and outdated by the time of print. • the need to use actual values of energy usage instead of some relative percentage from a baseline, i.e (EUI) targets in kWh/m2/yr instead of % reductions, which to many are meaningless. 	Comments noted.
Gemma Honey (Deputy Town Clerk)- Kenilworth Town Council	Typos/ suggestions	In 3.28 there needs to be a space between "confirm" and "any"	Comment noted. .

<p>Clerk)- Kenilworth Town Council</p>		<p>Paragraph 4.7 does not appear to make sense. Renewable energy technology either does or does not contribute to energy efficiency requirement, and perhaps the second sentence in this paragraph should be deleted.</p>	<p>Comments noted. The SPD has considered the compliance with policies for domestic dwellings and non domestic buildings. We accept that this adds complexity to the SPD but it reflects how the calculation methodologies SAP & SBEM differ.</p>
<p>Elanor Wright (Oxalis Planning) on behalf of Pristine Holdings</p>		<p>It is encouraging that the SPD aligns with the adopted DPD's approach in seeking to ensure that best practice is followed and that development is committed to achieving net zero targets, whilst maintaining a general level of flexibility within these requirements.</p> <p>As per our previous comments, it is important that a strong and clear policy framework is established so that developers can understand the requirements with regard to reducing carbon emissions during the construction and operation of new development schemes. This SPD assists through providing a useful framework of reference for applicants and developers looking to deliver schemes within Warwick District.</p> <p>It is important for the SPD to recognise that large developments will often be brought forward through an outline planning application, which necessarily means that the final design details are unknown at application stage and the Energy Statement requirements for major developments should reflect this.</p>	<p>Comments noted. The SPD at paragraph 3.27 details that an applicant would need to identify the expected building specification in their energy statement and pro forma. This information is required to demonstrate that the development has been planned to be net zero carbon in operation (regulated energy). The Council believe that this should be considered at the earliest stage of design development to ensure that any resulting development can meet the requirements of the net zero carbon policies.</p>

		<p>The SPD should also recognise that larger developments will be delivered over a number of years, meaning that regulation and practice might change from the point of application to the delivery of the final phase of the development. The SPD should address this through giving more flexibility in the prescribed application requirements, enabling major schemes to adapt to changes and the evolution of the everchanging net zero environment.</p> <p>Whilst the SPD does acknowledge the difference between full and outline planning applications, we believe that greater allowances should be made in the level of detail required at the outline application stage.</p> <p>It is positive that the SPD aligns with the adopted DPD and is not prescriptive as to the standards and schemes used in preparing Energy Statements, as this enables the DPD and SPD to remain current throughout their lifetimes, during which it is probable that new standards and methodologies for calculating efficiencies will be introduced.</p>	
Elanor Wright (Oxalis Planning) on behalf of Pristine Holdings	Para 7.7	Whilst design principles can be established at this stage, it is important to retain a level of flexibility for larger schemes, which may be delivered over a number of years, to ensure that new innovations can be accommodated, where appropriate.	As above, paragraph 3.27 outlines what information is expected for each type of application.
Elanor Wright (Oxalis Planning) on behalf of Pristine Holdings	Annex A	The pro-forma at Annex A appears too prescriptive to accommodate outline planning applications, for which many of the requested details will be unknown. The pro-forma should instead be put back to the Reserved Matters submission stage, with targets established at the outline application stage.	Paragraph 3.26 & 3.27 outlines what is required for each type of application. For outline applications the applicant should demonstrate the expected building specification.

			As detailed in paragraph 3.27, subsequent applications e.g. reserved matters or S73 would need this information to be updated in any event.
Elanor Wright (Oxalis Planning) on behalf of Pristine Holdings	General comments	Overall, we agree with the Council's approach to addressing the climate emergency. The policies and requirements generally incorporate flexibility and acknowledge its importance in delivering sustainable development.	Comments noted.
Chris Waldron (Ministry of Defence)	General Comments	<p>The MOD may have an interest where development is of a type likely to have any impact on operational capability. Usually this will be by virtue of the scale, height, or other physical property of a development. Examples these types of development include, but are not limited to:</p> <ul style="list-style-type: none"> • Wind turbines may impact on the operation of surveillance systems such as radar where the rotating motion of their blades can degrade and cause interference to the effective operation of these types of installations, potentially resulting in detriment to aviation safety and operational capability. This potential is recognised in the Government's online Planning Practice Guidance which contains, within the Renewable and Low Carbon Energy section, specific guidance that both developers and Local Planning Authorities should consult the MOD where a proposed turbine has a tip height of, or exceeding 11m, and/or has a rotor diameter of 2m or more; and, • Any development that would exceed a height of 50m above ground level. Both tall (of or exceeding a height of 50m above ground level) structures and wind turbine development introduce physical obstacles to low flying aircraft 	Comments noted. The planning applications that will have such implications will be discussed with the MOD as a part of the consultation process.

		<ul style="list-style-type: none"> • Development, regardless of height, outside MOD safeguarding zones but in the vicinity of military training estate or property. 	
Tom Day- South Warwickshire University NHS Foundation Trust	General Comments	<ol style="list-style-type: none"> 1. Whereas we appreciate the SPD focuses on net zero, should there also be a reference to green spaces and the importance of biodiversity, which are currently, often left out of sustainability conversations which measure everything in carbon metrics. Consideration should be given to at least making reference to these? 2. The SPD quotes efficiencies of circa 300% for air source heat pumps, but our understanding is that this is typically with outdoor temperatures in mid-10s, not the colder temperatures of the winter months. Does it need to be acknowledged that during winter, efficiencies are lower and it may cost more to run a heat pump than a gas boiler during this period? 3. The inclusion of Combined Heat and Power (CHPs) as a potential solution is surprising. We would not have thought these would not be recommended unless run by biogas or hydrogen, but it does mention gas (high carbon impact) and biomass (caution with fuel sources)? 4. Should the potential impact on air quality be noted in relation to the inclusion of biomass? 5. We would be interested to hear more about the details of the council's carbon offsetting scheme. 	<p>The NZC DPD and this SPD focuses only on carbon emissions from buildings, and such contains guidance only on this element only. The Council would expect a developer to demonstrate compliance with other policies of the adopted local plan, for example CC1. Furthermore, the South Warwickshire Local Plan will continue to develop climate change policies and guidance in line with their statutory duty and in relation to carbon budgets set nationally and at a local level.</p> <p>2. The SPD in section 5 provides an overview of low and zero carbon technologies, the level of information is deemed to be proportionate to applicants consideration of these technologies through the energy statement.</p>

Appendix 10- Schedule of proposed Modifications to the Published Warwick Net Zero Carbon Supplementary Planning Document

**Schedule of Proposed Modifications to the Published
Warwick Net Zero Carbon SPD (October 2023)**

Warwick District Council

March 2024

The following format has been used to denote the modifications:

~~Strikethrough text~~ = text proposed for removal compared to the submission version

Underlined text = new text proposed compared to the submission version.

Such modifications have been set out in the third column of the following table with reasons for the changes set out in the final column.

Schedule of Proposed Modifications

This document comprises a schedule of proposed modifications to the Net Zero Carbon SPD arising from the public consultation.

Proposed Main Modifications

Submission Plan Reference	Proposed Main Modification	Reason for Modification
Page 10 Table 1	Further information column: Equivalent to the carbon reduction anticipated to be achieved by the Future Homes Standard (<u>2021 specification</u>), which is expected to become the new national minimum requirement from 2025.	To clarify which FHS consultation this information is based upon.
Page 12 Paragraph 3.11	We note that it has already been proven feasible to deliver <u>design</u> homes that perform at this standard in Warwick District – see Gallows Hill case study. Commenced in 2020, this social housing project achieves a ≥77% improvement on Part L 2013 (which means it would meet or outperform the minimum on-site standard required by Policy NZC1). This was achieved through fabric improvements, air-source heat pumps, and solar panels.	To make it clear that homes were designed to this standard.
Page 14 Heading of Table 2	Table 2: Carbon and energy-saving measures categorised by their contribution to different parts of the <u>NZC1</u> policy requirement by development type	To make the table clearer on how it relates to the policy requirements of NZC1.
Page 12 Case Study	<p>Key facts</p> <ul style="list-style-type: none"> The homes <u>were designed</u> achieve a 100% reduction in carbon emissions compared to the target set by Part L 2013. 	To make it clear that homes were designed to this standard.
Page 23 Figure 3 (text in white box)	Please also note that the higher solar gain from south facing windows is also a risk factor for overheating in highly insulated and airtight buildings; therefore it is important to ensure that designs are balanced so as to maximise the benefit reduced heating demand while also avoiding triggering the need for active cooling, whose energy consumption could negate the energy savings of the reduced heat demand. Overhead shading of south- and west-facing glazing, using deep insets or brise-soleil, can help avoid this problem by blocking summer sun (which comes at a high angle) while still allowing the building to receive winter sun (which comes at a low angle). The GHA has guidance on this matter.	Included hyperlink to signpost guidance on overheating.

Submission Plan Reference	Proposed Main Modification	Reason for Modification
Page 25 Table 4	<p>Rename the title of the last column:</p> <p>Future Homes Standard Part L 2025 notional dwelling¹⁷ (RECOMMENDED TO MEET POLICY NZC2(A))</p> <p><u>RECOMMENDED TO MEET POLICY NZC2(A) based on the Future Homes Standard Part L 2025 notional dwelling [footnote 17]</u></p>	To clarify the recommended approach to achieve NZC2A, by employing the FHS (2021 consultation version).
Page 25 Paragraph 4.8	Policy NZC2(A)'s new dwelling requirement for a 10% improvement on the Part L 2021 TFE (Target Fabric Energy Efficiency) is based on the expected fabric specification for the Future Homes Standard (Part L 2025) <u>[add in footnote '17']</u> . Thus it is anticipated that most new dwellings follow the FHS notional building fabric specification. This FHS notional building specification is replicated below as it was laid out in the Government's FHS Consultation Response.	To clarify which FHS consultation this information is based upon. Table 4 on this page reiterates which version of the FHS is being used.
Page 26 Paragraph 4.12	Applicants are not required to build precisely to the Future Homes specification described above; considering that a lower performance in one building element (e.g., windows) may be able to be balanced out by better-than-notional performance in another (e.g. airtightness).	To simplify the language used on how applicants can approach achieving policy NZC2A.
Page 28 Paragraph 4.23	<p>Justification should also be provided in the Energy Statement on the reasons for the selected measures in respect to their suitability and effectiveness for the type of development proposed and (where relevant) the site characteristics.</p> <p><u>Where full compliance is not feasible or viable having regard to the type of development involved, proposals must demonstrate through the energy statement that carbon reductions to the greatest extent feasible through energy efficiency measures have been considered and incorporated.</u></p>	To ensure that where these measures are unfeasible applicants know what needs to be demonstrated.
Page 35 Paragraph 5.5	Tables 7–18 below provide a summary of the available types of renewable and low-carbon energy supply measures and their general suitability to different situations. <u>Note, the following tables provide broad considerations. The application of each technology will need to take into account location specific contexts including, but not restricted to, heritage conservation, visual impact and locational requirements.</u>	To respond to multiple comments on specific additions for renewable technologies

Submission Plan Reference	Proposed Main Modification	Reason for Modification
Page 39 Table 9	<p>Suitability / applicability across schemes:</p> <p>More suitable for larger homes where there is more demand for hot water but remain suitable in flatted schemes too, although issues could be apparent for space and location requirements.</p> <p><u>Combined with heat pump technology, hot water storage will be required to store hot water, this can be provided by a hot water cylinder. The size of this cylinder depends on the amount of hot water the house/building requires. If there are space or other constraints that limit the ability for hot water storage, there are hybrid heat pump systems available to produce heating and hot water.</u></p>	To reflect comments regarding use of storage with heat pumps.
Page 40 Table 11	<p>How efficient is it?</p> <p>The technology is 100% efficient as each unit of electricity is directly converted into a unit of heat. However, direct electric heating is approximately three times less efficient than any type of heat pump and therefore, relatively, is highly inefficient when compared to alternative technologies.</p> <p><u>Direct electric heating is roughly three times less efficient than any heat pump technology, making it relatively inefficient compared to alternative technologies in addition to potentially higher energy costs for occupants. This should be carefully considered for occupants who are vulnerable to high energy costs.</u></p>	To make it clear that whilst direct electric is efficient in how it creates heat, it is less efficient than heat pumps.
Page 42 Table 13	<p>Location and space requirements</p> <p>Space is a key consideration. The average system size is around 3.5kWp and this will typically take up around 20m² roof area. An unshaded, south facing roof is ideal for maximum electrical output. East or West facing roofs could still be considered, but North facing roofs are not recommended. A system facing East or West will yield around 15-20% less energy than one facing directly South. <u>Roof structures and features including dormer windows and rooflights should be carefully designed as to maximise the available space for PV panels.</u></p>	<p>To make it clear of roof constraints.</p> <p>To make it clear there are heritage considerations for both PV mounted on buildings and for standalone installations.</p>

Submission Plan Reference	Proposed Main Modification	Reason for Modification
	<p>Things to be aware of (e.g. noise and visual impact)</p> <p>There are visual impacts to consider – rooftop solar PV installations may not be possible <u>appropriate</u> and heritage and conservation designations must be considered. <u>For ground mounted solar installations, the historic environment, landscape impact and short- and long-range views will need to be considered.</u></p> <p>Generally, solar panels should not make noise, unless there is a structural defect or a problem with the installation.</p> <p>Solar Panels can provide a space for birds, in particular pigeons to nest under. Consideration should be given to netting or mesh to avoid unwanted nuisance.</p>	
Page 44 Table 15	<p>Suitability/applicability across schemes</p> <p>Can be installed in centralised energy centres as part of a district-wide strategy. Best suited to new build schemes, with consideration of the technology from the outset. <u>non-residential schemes with consideration of the technology from the outset and where there is a high heat and electricity demand.</u></p>	To acknowledge specifics of CHP technology
Page 49 Paragraph 5.13	<p>As per NZC2(B) of the Net Zero Carbon DPD, where DH networks are proposed, applications should be accompanied by an energy statement that includes an assessment of the advantages of a network system vs individual systems, an accurate assessment of distribution heat losses, a long term strategy for the sustainable supply of low carbon fuel and that the network has a credible route towards achieving zero carbon status. <u>Consideration to the risk and mitigation of overheating is also required.</u></p>	To clarify the risk to overheating.
Page 48 Paragraph 5.9	<p>As per Warwick Local Plan Policy CC2-Planning for Renewable Energy and Low Carbon Generation (point 'e') where possible, homes and buildings should maximise appropriate opportunities to address the energy needs of neighbouring uses and should link to existing or planned local carbon district heat networks <u>where this would result in lower carbon emissions than a reasonable on-site alternative.</u></p>	To clarify that DHN should only be employed where they would deliver lower carbon emissions.

Submission Plan Reference	Proposed Main Modification	Reason for Modification								
Page 51 Paragraph 6.2	<p>Carbon offsetting should only be used as a last resort, and only when an applicant has maximised on site carbon reductions through stages 1 and 2 of the energy hierarchy. The Council will only accept offsetting where it is demonstrated that measures under NZC2(A) and NZC2(B) are not feasible having regard to the <u>design and</u> type of development involved. This should be demonstrated within the Energy Statement and justification provided where Policies NZC2(A), NZC2(B) and on-site net zero regulated carbon is not achieved.</p>	To align with the wording on NZC2C.								
Page 52 Paragraph 6.4	<p>The Energy Pro-Forma (Annex 1) includes the calculation of any residual emissions and the total monetary value of carbon offsetting required for a development. <u>The Pro-forma includes the following options for calculating the monetary value of offsetting:</u></p> <ul style="list-style-type: none"> • <u>Static offset: applying the BEIS carbon value over the 30-year period.</u> • <u>Dynamic Offset: incorporating the BEIS projections for grid decarbonisation over the 30-year period – this approach is only recommended for wholly electric schemes.</u> <p>These funds represent a contribution to the Council’s Carbon Offsetting Scheme which would be secured via a Section 106 agreement and paid before the occupation of a development.</p>	To illustrate static and dynamic offsetting.								
Page 55 Table 19	<p><u>Replace entire table with:</u></p> <table border="1"> <thead> <tr> <th>Threshold</th> <th>Requirement – Outline applications</th> <th>Requirement – Reserved Matters / Detailed applications</th> <th>To be submitted</th> </tr> </thead> <tbody> <tr> <td>New major development</td> <td>Set out the embodied carbon strategy for the development, where relevant setting out methodology and</td> <td>Demonstration of how embodied carbon has been considered and reduced where possible</td> <td>Energy Statement</td> </tr> </tbody> </table>	Threshold	Requirement – Outline applications	Requirement – Reserved Matters / Detailed applications	To be submitted	New major development	Set out the embodied carbon strategy for the development, where relevant setting out methodology and	Demonstration of how embodied carbon has been considered and reduced where possible	Energy Statement	To clarify what is provided at outline or reserved matters stages.
Threshold	Requirement – Outline applications	Requirement – Reserved Matters / Detailed applications	To be submitted							
New major development	Set out the embodied carbon strategy for the development, where relevant setting out methodology and	Demonstration of how embodied carbon has been considered and reduced where possible	Energy Statement							

Submission Plan Reference	Proposed Main Modification				Reason for Modification
	Proposals for development of ≥50 new dwellings and/or ≥5,000sqm	<p>targets to be considered at the detailed design stage.</p> <p>Set out the embodied carbon strategy for the development, setting out methodology and targets to be considered at the detailed design stage. Provide an estimate of the embodied carbon of the proposed development utilising the RICS Whole Life Carbon Assessment methodology.</p>	<p>Demonstration of how embodied carbon has been accounted for and reduced where possible.</p>	<p>Whole-life embodied</p>	
Page 64 Paragraph 8.3	<p>Policy NZC4 <u>recognises the value of embodied carbon in existing buildings and encourages an approach to existing buildings that pursues energy efficiency measures, low carbon energy supply, and renewable energy generation, relevant to the scope and scale of the proposed development/redevelopment to ensure that buildings contribute to lowering carbon emissions over the course of their lifespan.</u></p>				<p>To clarify the importance of embodied carbon in existing buildings as a way of reducing future carbon emissions from existing buildings.</p>
Page 68 Paragraph 8.21	<p>PAS 2035 is a best practice standardised process for retrofitting dwellings for energy efficiency in the UK. <u>PAS 2038 is the equivalent process for non-domestic buildings.</u> ‡ They allows retrofits to be Trustmark certified, providing security and reducing risks for building owners. Using PAS 2035, a risk appraisal can be carried out to demonstrate how retrofit measures have been carefully designed to minimise overheating risk (from increased airtightness) and minimise</p>				<p>Include PAS standard for non-domestic buildings.</p>

Submission Plan Reference	Proposed Main Modification	Reason for Modification
	health risks to occupants (including condensation, mould and improper ventilation).	
Page 74 Glossary	<p><u>INSERT:</u></p> <p>Definition of performance gap: There is significant evidence that suggests that buildings do not perform as well when they are completed as was anticipated when they were being designed. The difference between anticipated and actual energy performance is known as the performance gap.</p>	To provide clarity on what the performance gap is
Page 75 Glossary	Publicly Available Specification 2035 & 2038 <u>PAS 2038</u>	To align with other proposed modifications
Page 77	<p>Part 1 of this Energy Pro-Forma must be completed for all applications as set out above to demonstrate compliance with policy requirements of NZC1, NZC2A-C and NZC3. <u>Alternatively, if Passivhaus accreditation is being sought applicants will need to submit PHPP calculations to demonstrate compliance with NZC1.</u></p> <p>For residential development please complete 1A, for non-domestic development please complete 1B.</p> <p>For developments where repeated house typologies are being used, or where multiple non-domestic buildings are being proposed, the applicant can apply an aggregated average of carbon emissions across these typologies or building types. The tables below indicate where aggregated data should be input if being used, otherwise please complete each table according to the proposed dwelling(s) or building(s) being proposed. Annex: Energy Pro-Forma</p> <p>A separate Energy Pro-Forma has been prepared for Existing Buildings (householder, extensions and conversions) to demonstrate compliance with NZC4. This is set out in Part 2.</p>	To include the alternate route for Passivhaus / PHPP compliance.

Title: Newbold Comyn Cycle Trails

Lead Officer: Marianne Rolfe

Portfolio Holders: Councillor Ian Davison & Councillor Jim Sinnott

Wards of the District directly affected: Leamington Clarendon and Brunswick

Approvals required	Date	Name
Portfolio Holder	22/4/2024	Councillor Ian Davison, Cllr Jim Sinnott
Finance		Jonathan Huxley
Legal Services		Kathryn Tebbey
Chief Executive		Chris Elliott
Director of Climate Change		Dave Barber
Head of Service(s)	22/4/2024	Marianne Rolfe
Section 151 Officer		Andrew Rollins
Monitoring Officer		Graham Leach
Leadership Co-ordination Group		
Final decision by this Committee or rec to another Cttee / Council?	Yes	
Contrary to Policy / Budget framework?	Yes – no allocated budget for recurring costs	
Does this report contain exempt info/Confidential? If so, which paragraph(s)?	Yes – The report includes a confidential Appendix which is exempt by virtue of Paragraph 3 – Information relating to the financial or business affairs of any particular person (including the authority holding that information)	
Does this report relate to a key decision (referred to in the Cabinet Forward Plan)?	No	
Accessibility Checked?	N/A	

Summary

The report is to seek approval from Cabinet to commence the procurement of an external operator for the cycle trails at Newbold Comyn, to advertise for a cafe operator for a commercial lease on the cafe in the Hub at the cycle trails, and to note the allocated funding to complete the fit out of the Hub.

The trails officially opened in October 2023 and have been managed with the support of specialist contractors, a local cycle club and British Cycling. The "Hub" based in the adjacent grade II listed barns has been completed but as yet not "fitted out". There is further work required to ensure that the Hub buildings are secure before the current hoarding can be removed, and landscaping completed.

Recommendations

- (1) That Cabinet agrees to the procurement of an operator to manage, monitor and maintain the trails on a day to day basis along with ancillary roles to promote cycling, as set out within the Confidential Appendix E to the report.
- (2) That Cabinet delegates the detail of the procurement to the Head of Safer Communities, Leisure and Environment in consultation with the Portfolio holder for Safer Healthier Communities based on the feedback from the January 2024 soft market testing exercise and discussions with British Cycling and Sport England.
- (3) That Cabinet notes there will be increased recurring costs for the maintenance of the security systems which will be identified for consideration within the 2025/26 budget setting process.
- (4) That Cabinet agrees to the advertisement of a commercial lease for a small café to be based in the Hub.

1 Reasons for the Recommendations

1.1 Background

- 1.1.1 Construction of the cycle trails formed one component of the Newbold Comyn Masterplan that was formally approved by the Cabinet in November 2020. The project was made possible by a successful bid to the British Cycling/Sport England "Places to Ride" funding stream and was seen as a valuable addition to the outdoor sports opportunities in the district providing a free to use facility for all levels of cyclists.
- 1.1.2 Construction of the trails, conducted by On Track, commenced in Summer 2022 and was completed in summer 2023. Works to the old "golf shop" section of the barns was completed in late 2023 to provide a shop area and café to work in conjunction with the trails.
- 1.1.3 The trails construction project was overseen by the Newbold Comyn Project Board who approved the approach taken and use of the funding available from Sport England and the Council's Community Infrastructure Levy (CIL) funds.

1.1.4 In early 2023, a short procurement exercise was undertaken to identify an external operator who would take on the responsibility for the trails for 24 months, allowing the trails to be opened as soon as possible, and allowing the Council to understand more about the requirements for the longer term operation of the site. This procurement activity was unsuccessful with no operator coming forward. Feedback from this exercise informed the Council that the short term nature of the contract and the short turn around required was not attractive to the market.

1.1.5 In late summer 2023, to complete works so that the trails could be officially opened, specialist contractors were engaged to support officers in terms of monitoring the trails, undertaking maintenance and repairs, and to advise the Council on best way to operate a safe facility. Royal Leamington Spa Cycling Club also provide on the ground monitoring of the trails and gather feedback from users.

1.1.6 In November 2023 approval was granted for additional officer resource to plan and undertake supplementary soft market testing and if appropriate lead on a procurement exercise to appoint an external contractor for the facility as per the approach defined by the Newbold Comyn Project Board.

1.2 Current Position

1.2.1 Since the Trails opened, they have been well used and officers have received very positive feedback about the facility.

1.2.2 The main trails have stood up remarkably well given the extremely wet winter and have remained open throughout. There have been a small number of incidents where it is suspected that intentional vandalism has taken place, with obstructions placed on the trails, but these have been identified and remedial action taken to ensure the trails were safe.

1.2.3 The Learn to Ride (LTR) area has suffered with drainage issues from mid-December, forcing the Council to close the area. On Track returned to site to address these issues in late January and the LTR area re-opened in early February.

1.2.4 Works to the 4 Cross area, the old BMX track, were completed in late summer 2023 and the track is now open. There have been some incidents of vandalism in the area adjacent to the 4 Cross area which officers are aware of and are working on measures to deter this in the future.

1.2.5 Trail counters were installed on the main trails and the LTR area in January 2024, which will allow officers to monitor usage of the trails. There are currently four counters installed, picking up usage of key routes. the table below shows the number of rides counted for January to April 2024 is as follows:

	January	February	March	Total for quarter
Learn to Ride (Lower area)	1,884	793	3,155	5,832
Learn to Ride (Upper area)	1,239	3,879	8,751	13,869

Main trails (Easy)	3,365	3,397	3,868	10,630
Main trails (Difficult)	3,269	2,902	2,998	9,169

1.2.6 Weekends show significant peaks in usage together with New Years Day 2024. Officers are investigating the validity of the data for the LTR area given that it was officially closed for most of January, however we are aware that many riders ignored the "trails closed" signage and hazard tape and used the facility regardless.

1.2.7 The Council is subject to grant conditions associated with the funding provided from Sports England. The terms and conditions the council signed require over the next 15 years the council to:

- deliver cycle trails, cycling facilities, and a cycle hub building.
- deliver the Development Plan: required to review and update the Operations Plan every 24 months, ensuring it aligns with the Programme and incorporates feedback from Sport England and British Cycling.
- Ensure that the Facility achieves and maintains key performance indicators (KPIs) (within 18 months of opening) and provides them to Sport England.

1.2.8 The Council had discussions with Sports England in terms of the grant conditions in March 2024. This conversation centered on the releasing of the final element of grant funding and required evidence of decision taken by the Project Board on the agreed approach for service delivery, namely, to procure a contractor, the timeline for operator procurement and estimated commencement date of the new operator.

1.3 **Soft Market testing**

1.3.1 Given the change in the cycling market since inception and the unsuccessful previous procurement exercise officers considered it important to undertake a detailed soft market testing (SMT) exercise was required to fully understand the state of the market in terms of potential operators for the cycle trails, shop, and café within the Hub.

1.3.2 Prior to undertaking the SMT, Officers engaged with Sport England, British Cycling, and a range of other cycle trail facilities to understand how such facilities are being managed elsewhere and what the viable solutions for Newbold Comyn may look like. This allowed a range of informed and pertinent questions posed during the SMT process.

1.3.3 The SMT process went live in mid-December and remained open until 12th Jan 2024. Officers ensured that potential interested parties were made aware of the opportunity to be part of the SMT process and included Sport England, British Cycling, local cycle organisations and retailers, Sustrans, and leisure operators.

1.3.4 There was limited response to the SMT process, with only two local enterprises taking the opportunity to engage with the Council.

1.3.5 Everyone Active expressed some interest, but on balance they decided that the trails were not something that they could support without having an impact on their core leisure centre business. The local Everyone Active team have however stressed that they would be happy to collaborate with the Council and any future operator to promote the trails and cycle related activities.

1.3.6 Appendix A summarises the roles and responsibilities of a trail's operator and the Council. Whilst Appendix B summarises the main challenges to the operation of the trails during the soft market testing.

1.4 **Options for service delivery.**

1.4.1 The outcome of the soft market testing was reported to the Project Board in January 2024. The Project Board was presented with three options,

- To retain the operation of the trails "in house" with a separate lease advertised for the cafe.
- To procure an operator for the cycle trails with a separate lease advertised for the cafe.
- To investigate the option to return the funding received from Sport England in order to remove commitments to funding conditions including the development plan, service level agreements with cycle club(s) and user groups, restrictions on spending and governance, marketing etc.

1.4.2 **Option 1: In house option (not recommended option).**

1.4.3 The In house option refers to council officers managing and operating the trails. Within this option officers would also deliver the grant funding conditions from Sports England.

1.4.4 This option would require significant additional resources over and above those currently available within the Sports and Leisure team. It is believed that two additional posts would be required, in order to provide a service which is open every day of the year and able to deliver the services outline in the grant condition performance indicators and delivery plan.

1.4.5 The above posts would be in addition to the 2FTE posts that incorporate the management of the trails at present. These existing posts are fixed terms and expire within the next 12 months and the above posts would free up a small proportion of their capacity to return to original duties. However, both of these posts are required in order to provide resilience and management arrangements for the trails.

1.4.6 The current in-house team also lack the expertise to deliver the "Development Plan" approved by British Cycling as part of the Places to Ride grant conditions, and the knowledge to operate the shop/information service based in the Hub. Therefore, the in house team would need to expand in terms of expertise which would clearly come at a cost. It is estimated that a training budget would be needed annually to ensure the necessary training for officers.

1.4.7 Officers are heavily reliant on specialist contractors to provide technical advice and undertake inspection and maintenance of the trails. There is no funding for this support beyond September 2024.

1.4.8 In addition, the in house team would be looking for volunteers to assist with the trail's development plan.

1.4.9 There remain operational costs for delivering the service in house. This includes those costs outlined in appendix E attributed to the operator. Namely, service charges, asset maintenance, cleaning, and compliance checks.

1.4.10 The costs of fitting out the hub would remain and have been dealt with in section 1.7 onwards.

1.4.11 This option would also require a second lease for a small cycle shop, which could provide specialist cycling advice and courses. It is estimated that the rental income per annum for this would be £4,000-£6,000.

1.4.12 The risks associated with this option include :

- The ability to recruit suitably experienced officers, with experience of cycle trails, community engagement, specialist cycling knowledge and the ability to deliver cycling courses. Failure to do so would require the following option to be considered.
- Securing a cycle retail offering as a lease arrangement for the shop area who will also deliver learn to ride courses and provide specialist cycle knowledge.
- The recurring staffing and operational costs impact on the Council's General Fund and would increase the deficit of the council.

1.4.13 This option is not recommended due to the high costs for the council and the high risk of not being able to recruit specialist and skilled officers in order to deliver the development plan.

1.5 **Option 2: Procure an operator (Recommended option)**

1.5.1 It was very clear during the soft market testing that there was no model that would see the cycle trails being run without a cost to the Council.

1.5.2 Until the procurement exercise has been completed it is impossible to specify the level of subsidy that the Council will need to make to the operation of the trails. Dependant on the timeline for procurement of the trails operator, the management fee for 24/25 would be adjusted accordingly.

1.5.3 The level of any income that the operator could generate from retail sales, cycle skills courses and events is unknown. Again, the only way to quantify these figures is to complete the procurement exercise.

1.5.4 Officers will be constructing the procurement exercise in such a way that potential operators will be required to outline a costed business plan for the contract term. This will allow them to demonstrate how the business will develop over the term of the contract, with the expectation that the cost to the Council will reduce over the contract period.

1.5.5 Officers intend to draft the contract in such a way that a "income share" arrangement is established for income generated from courses and events, so that it would be in the interests of the operator and the Council to promote such activities. Further advice from legal colleagues is required to confirm the best approach.

1.5.6 The council would require officers to oversee the contract management of this contract. It is believed that this would take a large proportion of the existing two fixed term contracts. However, prior to the outcome of the procurement exercise it is impossible to determine the FTE percentage. Therefore, the full cost figure of £106,500 is included for context and comparison. As stated in 1.2.5 These existing posts are fixed terms and expire within the next 12

months.

1.5.7 The risks associated with this option are:

- Unknown value of management fee required from WDC to operator which is unfunded and will increase the Council's deficit.
- Lack of interest in the procurement exercise or unsuitable tenders received.
- Short term nature of any contract and break clauses within the contract give the Council no long term certainty on the operational model and exposing a risk of further procurement in short/medium term.

1.5.8 Given the feedback from the soft market testing, the costs and review of all of the options, the recommendation from officers and confirmed by the Newbold Comyn Project Board was that the Council should seek to procure an external operator for the trails.

1.6 **Option 3: Return Funding received (not recommended option).**

1.6.1 The option involves approaching Sport England to negotiate the repayment of the grant funding which could free the Council from its obligations to use the Hub building in the prescribed manner and its delivery of the development plan.

1.6.2 The Funding terms defined the expected service and facility delivery for the £423,500k grant funding received.

1.6.3 Returning the funding or attempting to alter the terms and conditions of grant delivery is considered to be highly risky in terms of reputational damage to the Council with Sport England and those individuals who have been opposed to the scheme from its inception. The Council have enjoyed a positive relationship with Sport England for many years and have received significant sums of funding from in support of sport and leisure provision. Returning this funding could undermine the relationship with Sports England and the ability to secure future funding.

1.6.4 There would still be a need for an officer resource to manage the trails along with specialist contractors as per option one as this is similar to the current operational position.

1.6.5 The need to provide a café, small shop, courses or develop cycling with this district would be removed if the grant were to be repaid. The hub building could be used for other uses as outlined in the masterplan.

1.6.6 Officers believe that this option would not deliver the aims and ambitions of the Corporate Strategy and would reduce the benefits of the facility. The facility has a good reputation and there is a desire for the hub to open an offer the facilities and activities previously described.

1.6.7 The Risks associated with this option are:

- Reputational damage in the eyes of persons opposed to the trails and the decision to progress this project from the start.
- Reputational damage to the Council's relationship with Sport England who have been a valuable source of funding over many years and with who the Council enjoys a good relationship.
- Further delay in confirming the use of the Hub building and potential risk to

- the Hub whilst it remains unoccupied and associated additional costs.
- Increased pressure on the officers to manage the trails with little or no support from British Cycling and or local clubs.
- Increased financial pressures on the Council.

1.6.7 This option is not recommended due to the costs of managing and operating the trails, the reputational damage to the council from stakeholders and partners coupled with the additional pressure of repaying the grant.

1.7 **Hub building**

1.7.1 Adaptation of the barn buildings, previously the golf shop and changing rooms, that will become the Hub and will house the small shop, café and toilets has been completed but areas within it have yet to be fitted out. It was originally envisioned that this work would be completed once the operators have been identified so that the fit out was appropriate for their use. However, it has become essential that the building is made secure as soon as possible in order that the unsightly hoarding can be removed, and members of the public can see what facilities will be provided in the near future. The removal of the hoarding also allows works to the soft landscaping in front of the Hub to be completed as soon as possible.

1.7.2 Quotes from contractors suggest that a budget of £65,000 is required to complete a basic fit out the Hub, install appropriate security and safety systems, complete the soft landscaping and remove the hoarding around the building. This sum currently includes some provisional sums for works that cannot be finalised until an operator is appointed and details of fit out are confirmed. It is hoped that in practice the works can be delivered for less than this sum.

1.7.3 It should be noted that some recurring maintenance costs will be incurred by the 'fit out works' which will need to be considered as part of the 2025/26 budget setting process. These will include annual testing of alarm systems, CCTV maintenance and statutory building compliance activities.

1.7.4 In addition to the cafe and toilets, the Hub will include an area that will allow the running of a small cycle shop, selling consumable cycling equipment (helmets, gloves, spare parts etc), be an information point for customers wishing to use the trails, promote cycling courses at the site, and sign post visitors to other cycling opportunities in the area. The shop will also be the meeting point for volunteers working on projects on the trails.

1.7.5 The soft market testing suggested that there could be a market for a small bike hire operation from the Hub, but this requires storage space to be identified on the site; officers are currently considering options for this.

1.7.6 Officers are conscious of the opportunities that the national cycle route 41 and other development in the local area linking cycling routes could offer in terms of Bike Hire for road riding as well. Thus, increasing the need for storage.

1.7.7 If the recommended option would see the shop included in the procurement for a trails operator. However, if the alternative options are selected then a small shop lease could be advertised as outlined in 1.2.11 with an annual rent payable to the council.

1.8 Café facilities and Toilets

- 1.8.1 From the inception of the project, the intention has been for a small café to operate from within the Hub, providing hot and cold drinks and snacks for cyclists and other visitors to the Comyn. The soft market testing was clear that this would not be a service that the cycle operator would provide, and in discussion with legal colleagues and based on experience of other park based cafes within the district, it is considered that a commercial lease is advertised to run a small café from the Hub, with an annual rental payable to the Council each year.
- 1.8.2 It is estimated that that the annual rental payable to the Council for such a lease would be £6,000.
- 1.8.3 Subject to Cabinet approval of the funding as detailed in this report, it is intended to advertise the lease for the cafe as soon as possible, in parallel with the works to complete the fit out, and with the intention that there will be a cafe service available for the summer of 2024.
- 1.8.4 The toilets were intended to provide services to the café and the trails operator clientele. It is intended that the toilets will be part of the café and or the trails operator leases. Therefore, the toilets would open in conjunction with the opening of the café or trails operator.
- 1.8.5 There is a risk that there would not be any interest in leasing a café in this location. Therefore, an alternative option for a café offering could be to offer a 'consented pitch' for a mobile street trading unit to be placed close to the Hub subject to the relevant permissions being obtained. This offering would be similar to that offered temporarily in Abbey Fields.
- 1.8.6 Whilst this would slightly reduce the fitting costs within the hub building, it would also not afford the Council a similar income. It would however, free up space within the Hub building to be used for a greater bike shop/hire, storage space for the operator or for a teaching space when courses are run at the trails or volunteers are working on the trails.
- 1.8.7 This option would require the toilets remain closed until the trails operator is appointed or be added to the existing public toilet contract. It is estimated that this would costs £8,000 annually.

2 Legal Implications

- 2.1 If the recommendations in this report are agreed, Officers will work with colleagues from Procurement and Legal Services to ensure that the procurement process is compliant and that all relevant legal considerations are made.
- 2.2 Engagement will continue with Sport England to ensure that the Council comply with the terms of the Places to Ride grant award and that procedures are put in place to ensure appropriate reports are sent to Sport England as required going forward.

2.3 There remain two unresolved variations to the original Planning Conditions that were approved in May 2021. Officers continue to work to resolve these outstanding conditions. Until this has been resolved, and given the sensitivity of the site, legal representatives have advised that the Council should be mindful about commencing any formal procurement processes for a trails operator until they are resolved. Officers are mindful of the legal comment and will begin any procurement exercises at the correct time and with further legal advice.

3 Financial Implications

3.1 The financial implications of the three options are tabulated in Appendix E.

3.2 The estimated management fee per annum to fund the operation and maintenance of the cycle trails is currently unfunded. It would need to be funded from the base budget without any additional base budget funding, thus increasing the overall Council deficit. As outlined in para 1.5.3 of this report potential operators will be required to demonstrate their businesses plans and their reducing reliance on council funding. This will form part of the evaluation of tenders.

3.3 It is recommended that any additional costs (such as staffing in Option 1) associated with 2024/25 will be funded from the Services Transformation Reserve. Subsequent years will be factored into the base revenue position as recurrent growth, as part of the 2025/26 budget setting process.

3.4 The monies identified for the additional works to the Hub (£65,000) is to be paid from already secured outdoor sports S106 funding. The table in appendix C shows the scope of works and estimates/quotes for the Hub works. Whilst the table below shows the separation of actual verses estimated costs.

Works required	Provisional cost	Actual/Estimate
Quotes received	£46,700	Actual
Quotes estimated	£19,000	Estimate

3.5 Estimated income from the cafe lease is expected to be in the region of £6,000 per annum.

3.6 Potential income from the cycle trails, shop, and courses remains unknown until the procurement exercise has been completed. The potential for requiring a "profit share" as part of the contract with the trails operator is an option to be considered with legal colleagues.

3.7 The anticipated increase to maintenance budgets for security systems at the Hub is estimated to be approximately £3,000 per annum. This will be identified within the 25/26 budget setting process.

4 Corporate Strategy

4.1 The creation of the free to use cycle trails on Newbold Comyn has been a key project within the previous Business Strategy of Warwick District Council since 2021.

4.2 The free to use cycle trails contributes directly to Priority 3 of the current

Corporate Strategy i.e. Creating vibrant, safe and healthy communities for the future. The preferred option of procuring an external operator is underpinned by Priority 1 i.e. to deliver valued, sustainable services.

5 Environmental/Climate Change Implications

- 5.1 Refurbishment of the Hub included the installation of an Air Source Heat Pump. Other potential opportunities to make the Hub more environmentally sound were unfortunately not possible, owing to the listed status of the building. These included conservation planning objections to the installation of PV panels, double glazing and upgrading the insulation of the external walls to the Hub.

6 Analysis of the effects on Equality

- 6.1 An Equality Impact Assessment for the cycle trails construction project and for the design has been completed and was included as an Appendix to the November 2020 Cabinet report. It is not believed that there are any changes required to this EIA.

7 Data Protection

- 7.1 There are no specific Data Protection implications of the proposal.

8 Health and Wellbeing

- 8.1 The project will make a significant contribution to the health and wellbeing of the residents of Leamington and the wider district. Usage data so far shows how popular the cycle trails are and usage levels can only continue to increase once an operator for the trails, and a café are in place. This will contribute to the levels of physical activity of the district's residents of all ages.
- 8.2 The latest LG Inform benchmarking data is included in appendix D which covers the year 2022, the graphs highlights the percentage of people within the district who engage in cycling and walking for leisure activities at least once per week, once a month and are classed as physical active for 150 minutes per week.

9 Risk Assessment

- 9.1 Risk assessments were completed at the initial stages of the project when deciding to progress the project and apply for Places to Ride funding.
- 9.2 In terms of current risks associated with the proposed procurement of an operator these can be summarised as follows:

Risk	Mitigation to date	Residual risk	Alternative options
Procurement of an operator fails to attract interest from suitable operator	Soft market testing; discussions with British Cycling and Sport England	Amber	Revisit the option of running the trails in house with specialist contractors and volunteers in support.

Management fee required by an external operator considered to be too high by Cllrs	Soft market testing	Amber	Revisit the option of running the trails in house with specialist contractors and volunteers in support.
Insufficient funds to fit out the Hub to ensure it is secure and appropriate for intended use	Quotes for works; consider option to exclude café from Hub	Green	Negotiate with successful operator re contribution to fit out of shop and cafe
Lack of interest in lease to run café or consented pitch vender on site	Informal discussions with café operators.	Amber	Install vending machines - need discussions with Sport England to see if this is acceptable within the terms of the grant funding

9.3 Within the project risk registers the risk of 'not providing a service that was cost neutral of income generating to the council' was not identified. However, there are a number of identified risks which overlap this risk. These risks have been realised. A project conclusion review will be undertaken to evaluate the project and identify learning outcomes (LOs). It will be important for future projects to ensure that these LOs are applied.

9.4 It should be noted that all options presented and appraised within the report will require capacity from Warwick District Council staff to manage any agreed arrangement. As present this work is incorporated into the work of 2FTE posts. However, these are both currently appointed on a fixed term basis, with contracts due to expire within the next 12 months. The cost of these posts is approximately £106,500. These will be subject to a separate review of the service.

10 Consultation

10.1 Consultation on the options and costs was held with Newbold Comyn Project Board.

Background papers:

Newbold Comyn Masterplan

Appendix A- Roles and Responsibilities

Role of the Operator

- Manage, monitor and maintain the trails on a day to day basis
- Operate the shop, with potential for a hire service if storage can be provided
- Delivery of learn to ride and cycle skills courses
- Work with volunteers and local cycle clubs
- Act as the point of contact on site for members of the public with queries relating to the facility and cycling more generally
- Maintain and clean the internal areas of the Hub

Role of WDC

- Contract management
- Oversight of the café lease (if that is the preferred model)
- Provide data as required by the Funding Agreement to Sport England/British Cycling
- Ensure the Management Group required by the Funding Agreement is established and be a member of the group
- Provide materials for routine day to day repairs to the trails
- Agree major repairs as necessary and procure the appropriate specialist contractor.

Appendix B – Outcome summary of the Soft market Testing

- The most obvious challenge for the Council is the absence of a financial model that would see an income stream for the Council from the cycle trails. The original vision that underpinned the proposal to create cycle trails on the Comyn, and the bid to British Cycling for capital funding to allow this to happen, was based on the assumption that a solution could be found that would see some income generated for the Council or at the very least be cost neutral.
- The sport of cycling has experienced some significant changes in the last 2 years and having spoken to British Cycling and commercial operators, this has limited the market and the number of operators prepared to take on contracts that require a payment to the local authority or landowner.
- Any income for an operator would come from the retail offering on site (the shop), courses that would be offered, and any event fees. All of these would take some time to become established, consequently leaving an operator nervous about entering into a contract that tied them to a financial commitment to the Council. The contract would require the operator to carry the costs for the roles and responsibilities outlined
- Potential operators were also concerned about the length of the contract that the Council would be seeking with an operator. Given the current volatility of the cycling market and the national economy, operators were not willing to consider a long contract (ideally 5 – 10 years) and would be looking for a significantly shorter term, with break clauses throughout the term. This is not ideal for the Council as it provides no long term solution for the facility and could mean further procurement in the medium term which comes at a cost of officer time.
- There was a question raised by the potential operators regarding insurance and who would take on the liability for insurance of the trails, given that the area is open to members of the public and therefore cannot be controlled at all times. This is a very different position to that of say a leisure centre operator who would insure against accidents/ incidents in a leisure centre where they can control access and manage activities with detailed operating procedures. The advice from the WDC Insurance Officer is that given the nature of the public access to the area, there is a strong case for the Council to take on the liability for the trails, providing that the contractor can evidence that they have been monitoring, managing and maintaining the trails as per the contract. Insurance for the Hub buildings, and any contents, however, would sit with the relevant operator i.e. the shop and the café.
- Construction of the Hub building is complete, but the hoarding remains in place to offer some protection to the buildings as security has yet to be installed (awaiting the outcome of operator procurement). Officers propose to get quotes for security to be installed as soon as possible, to allow the hoarding to be removed, the soft landscaping to be completed, and a cafe operator to be secured and the cafe open for users of the Comyn. There is currently no funding allocated for security measures or soft landscaping.

- If there is to be a “hire operation” run from the Hub, then on site storage needs to be identified. Discussions are ongoing to understand what space may be available in the barns on site.
- Based on experience since the trails opened in the autumn, an issue has been raised about access to the car park for cars with roof mounted cycle racks, and cyclists who transport their trail bikes in camper vans. The car park is currently protected by a height restrictor which prevents such vehicles entering, and consequently they park up on local roads which is not popular with local residents.
- There has been some comment that if the facility is to be a “local facility for local people” then there should be no need for users to transport their bikes in these ways, and they should be able to ride to the Comyn. In practical terms, trails cyclists would not ride their trail bikes on roads and need to find a way to transport them to the Comyn. Therefore, a solution needs to be found regarding the height restrictors.
- Until a solution can be found to operate the trails, the responsibility for overseeing the facility, coordinate the specialist contractors, local clubs and liaise with British Cycling and Sport England is falling on a small team who are already stretched with other duties. This is not sustainable without it impacting on other services managed by this team.

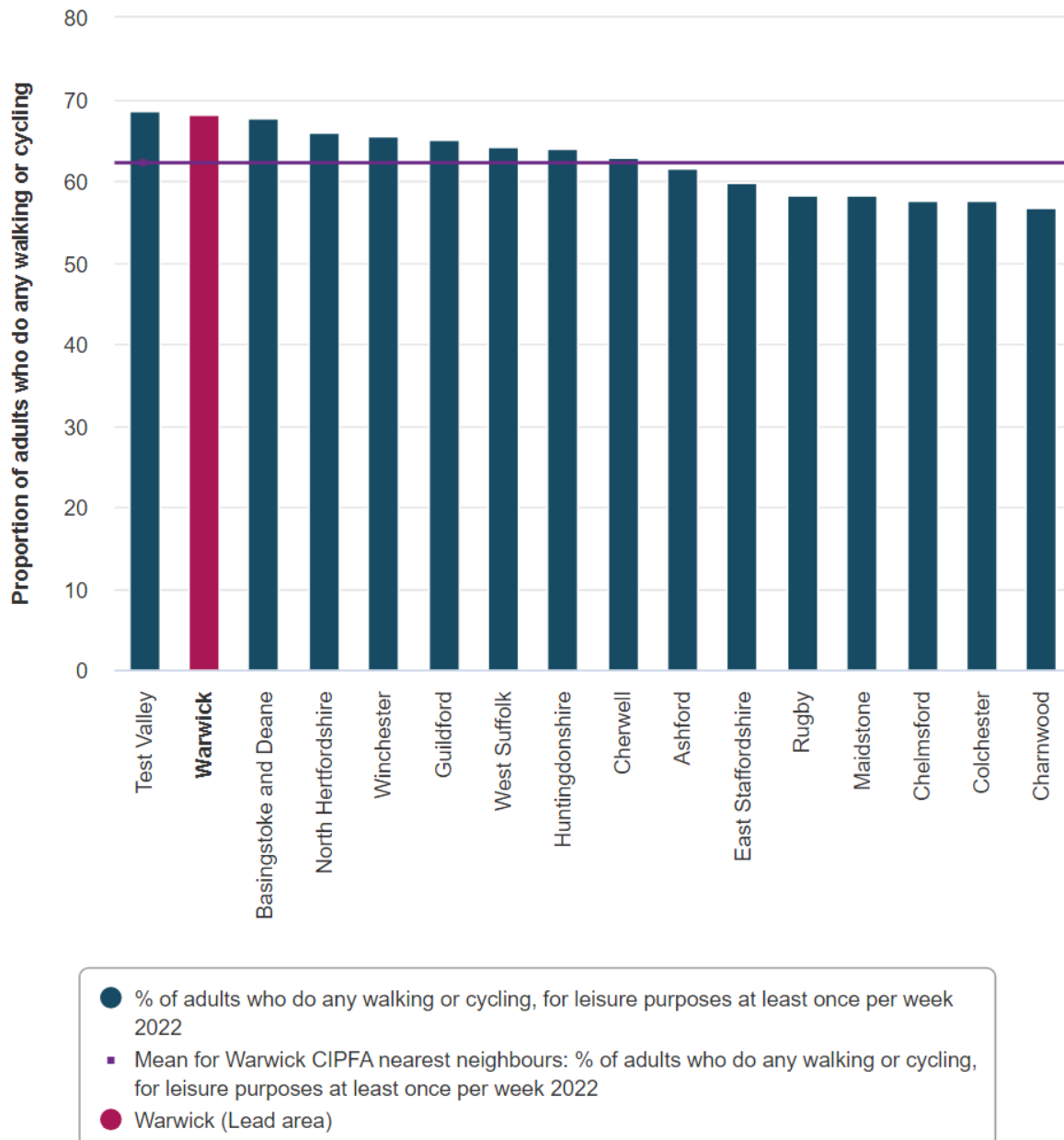
Appendix C - Breakdown of the Hub Building Fit out costs

Works required	Provisional cost	Actual/Estimate
Removal of hoarding	£1,500	Estimate
Landscaping in front of Hub	£15,000	Estimates and actuals
Fencing	£11,000	Actual
Electricity and plumbing	£2,500	Estimate
CCTV	£7,000	Actual
Fire alarms	£7,000	Actual
Intruder alarms	£5,000	Estimate
Security shutters	£11,000	Actual
Phone line/data	£5,000	Estimate
Total	£65,000	

Appendix D



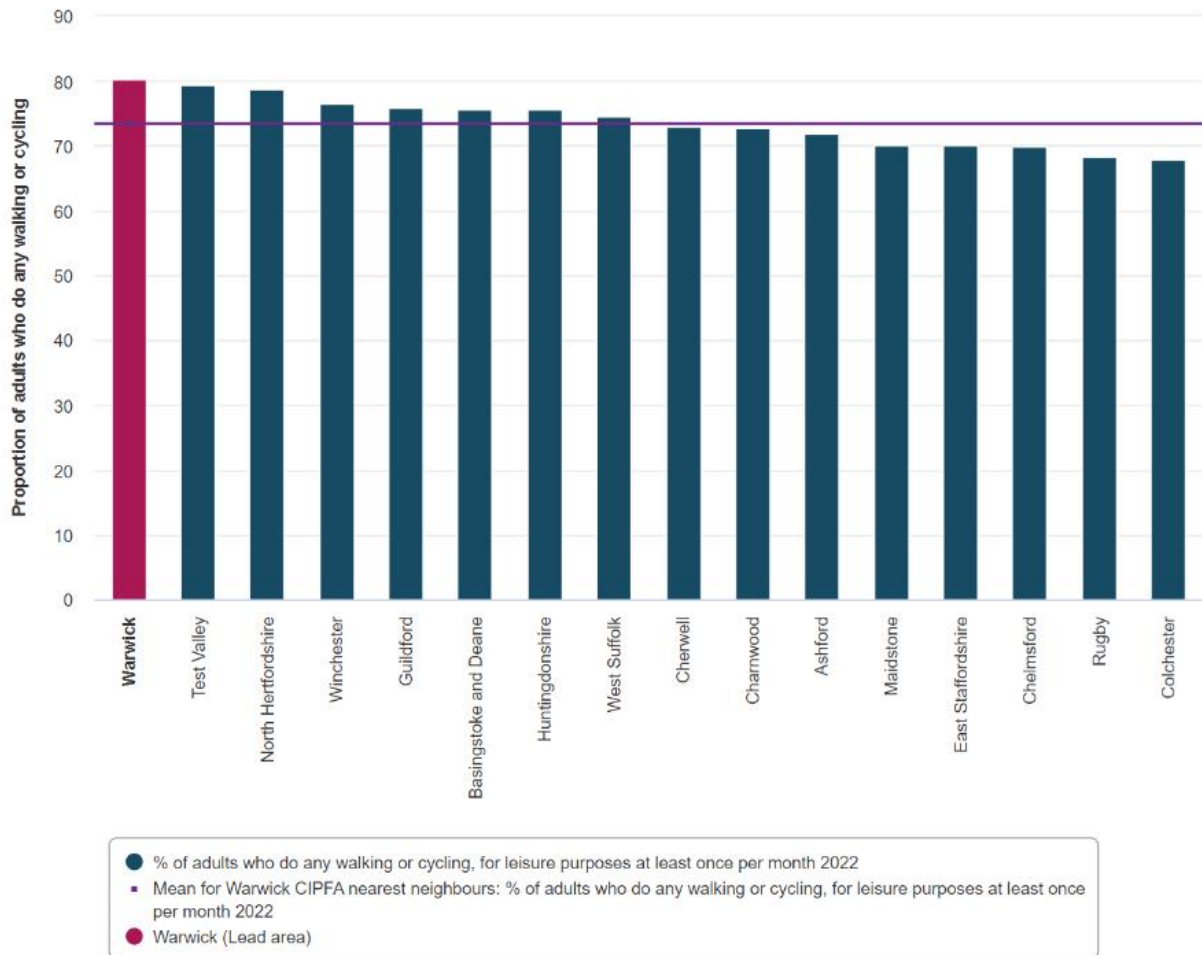
Proportion of adults who do any walking or cycling, for leisure purposes at least once per week (2022) for Warwick & Warwick CIPFA nearest neighbours



Source:
Department for Transport



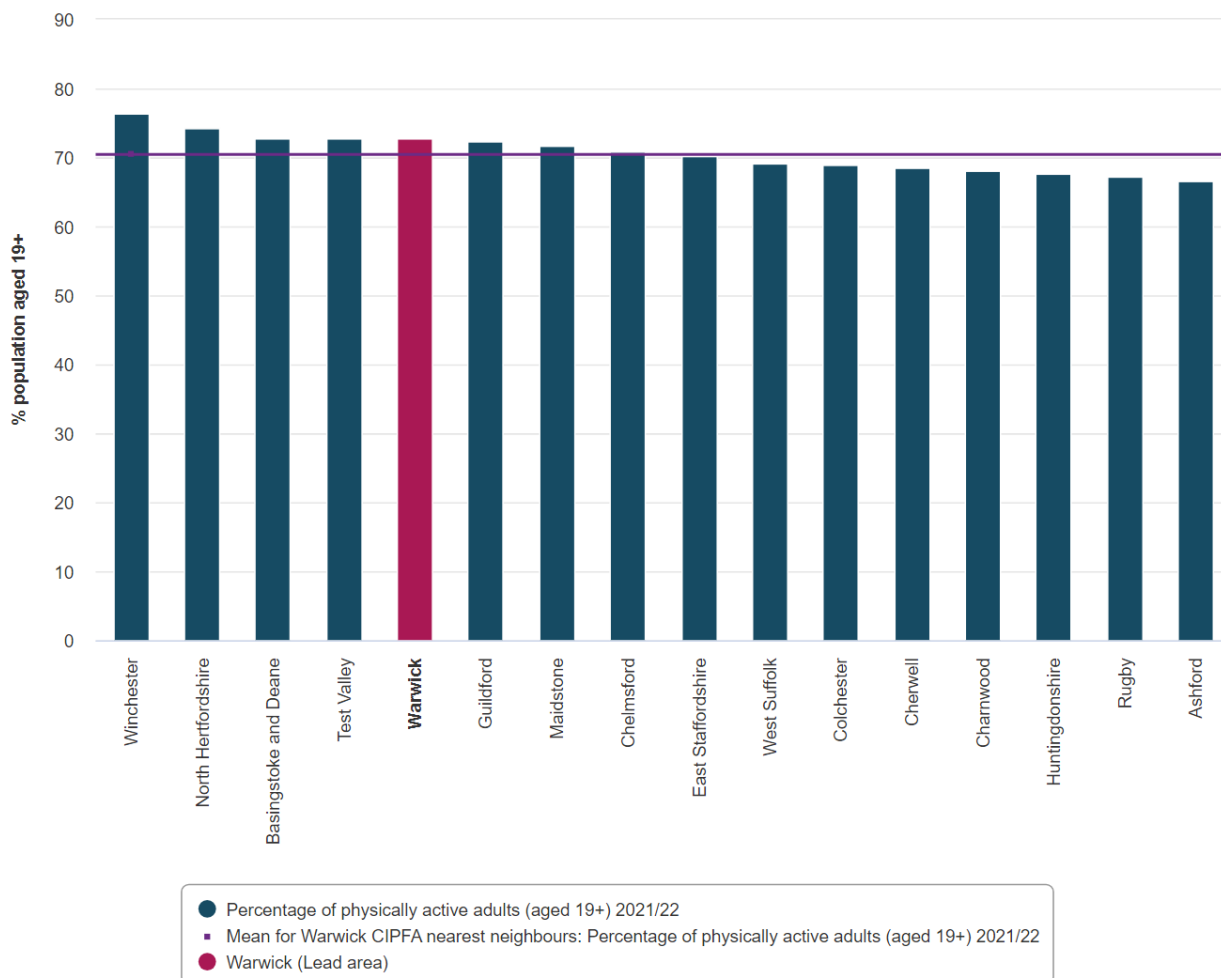
Proportion of adults who do any walking or cycling, for leisure purposes at least once per month (2022) for Warwick & Warwick CIPFA nearest neighbours



Source:
Department for Transport



Percentage of physically active adults (aged 19+) (2021/22) for Warwick & Warwick CIPFA nearest neighbours



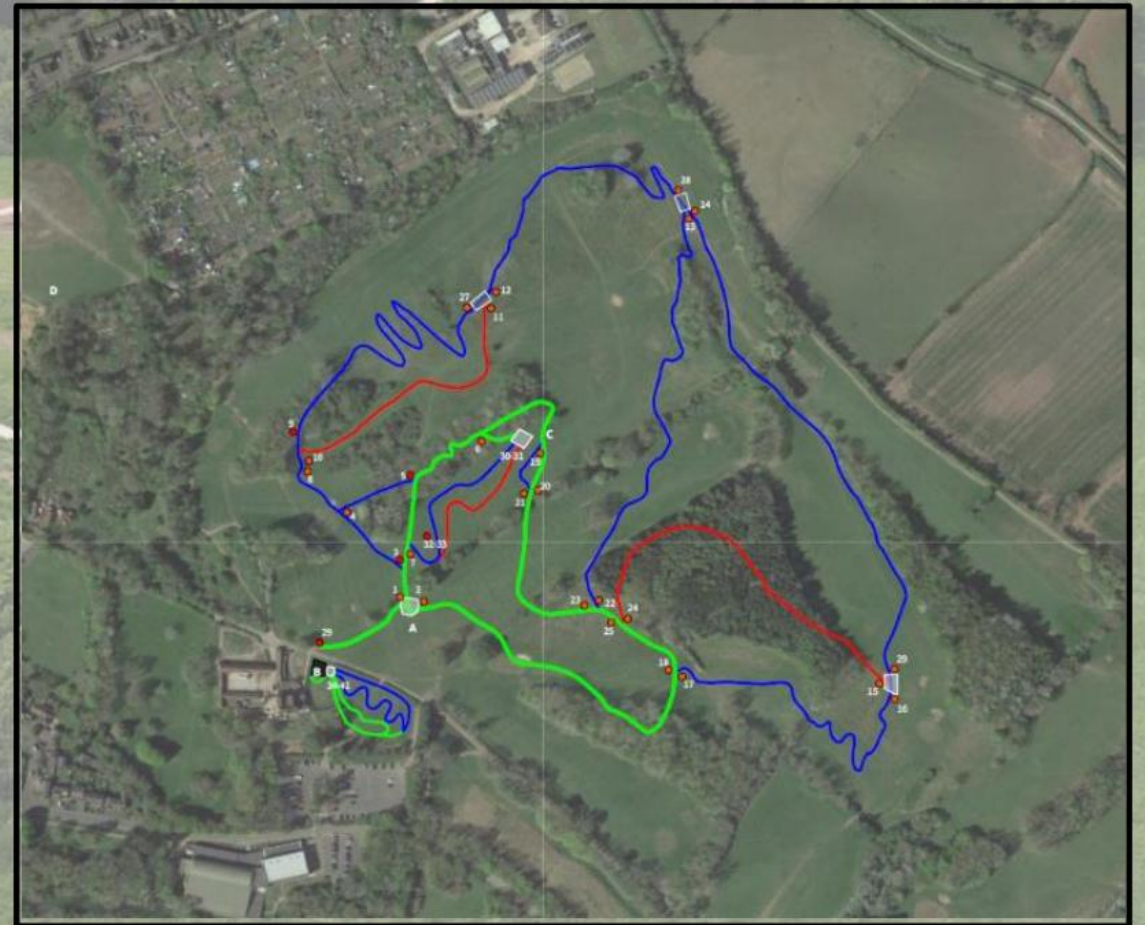
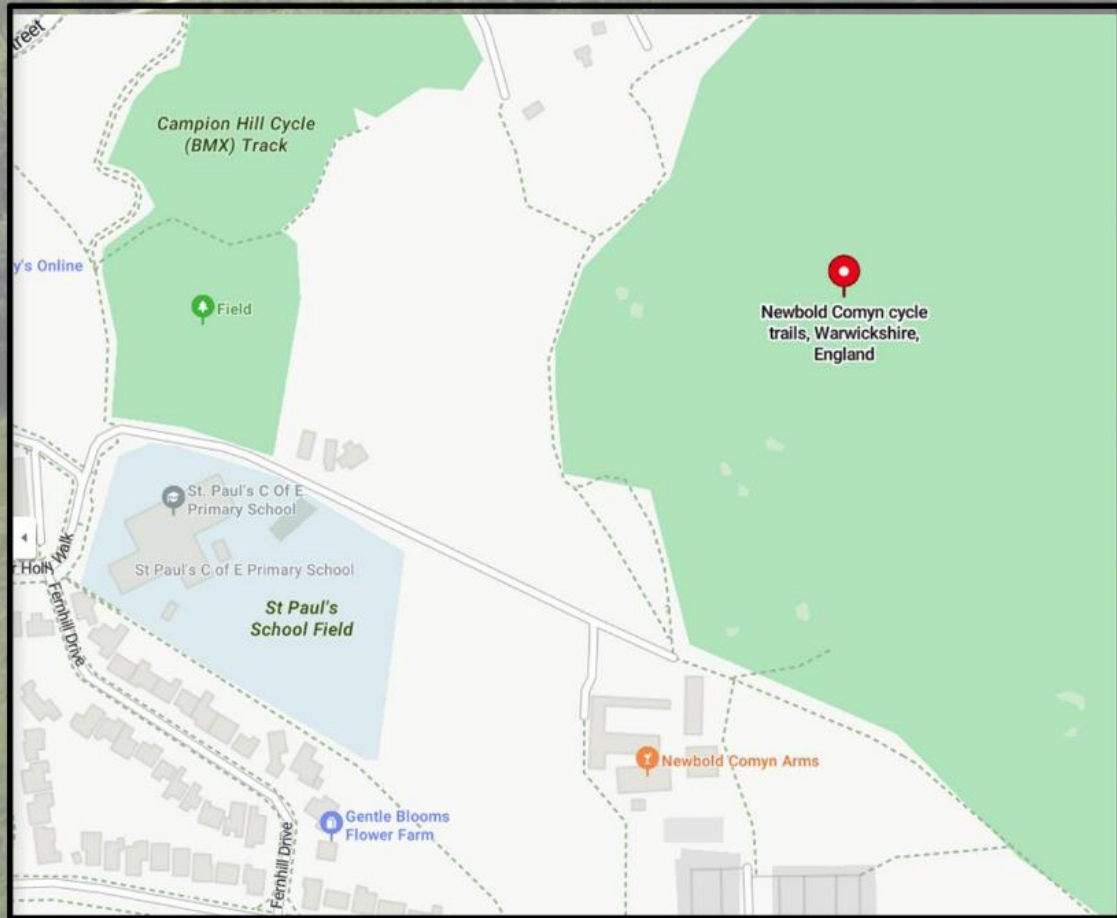
Source:
Office for Health Improvement and Disparities (OHID)

An aerial photograph of a golf course, showing a network of winding, light-colored paths that meander through lush green fairways and clusters of trees. The paths are well-defined and appear to be made of a different material or are simply worn into the grass. The overall scene is a mix of vibrant green and earthy brown tones, with the paths creating a complex, organic pattern across the landscape.

Cycle trails

Photographs and Location of the hub.

Cycle Trails Location



Hub Plan



Cycle Shop/ Operators Space



Café Space



Toilets



Title: Withdrawal of proposal for Artificial Turf Pitch at Newbold Comyn
Lead Officer: Paddy Herlihy
Portfolio Holder: Councillor Ian Davison
Wards of the District directly affected: Clarendon

Approvals required	Date	Name
Portfolio Holder	26/04/24	Ian Davison
Finance	26/04/24	Betty Gong
Legal Services	26/04/24	Kathryn Tebbey
Chief Executive	26/04/24	Chris Elliott
Director of Climate Change	26/04/24	Dave Barber
Head of Service(s)	26/04/24	Darren Knight
Section 151 Officer	26/04/24	Andrew Rollins
Monitoring Officer	26/04/24	Graham Leach
Leadership Co-ordination Group	29/04/24	Ian Davison
Final decision by this Committee or rec to another Cttee / Council?	Yes	
Contrary to Policy / Budget framework?	No	
Does this report contain exempt info/Confidential? If so, which paragraph(s)?	No	
Does this report relate to a key decision (referred to in the Cabinet Forward Plan)?	No	
Accessibility Checked?	Yes	

Summary

The Council has been preparing a proposal to locate a new Artificial Turf Pitch (ATP) for football on existing grass football pitches at Newbold Comyn. Approval to proceed with this project was provided by the Leadership Coordination Group on 18th September 2023.

As the project has been developed, however, it has become clear that it would not be appropriate to locate an ATP in this location for the reasons shown in this report. It is therefore recommended that the proposal to locate a new ATP in this location is now withdrawn and other options are considered in the future for the provision of the Artificial Turf Pitches required in the District.

Recommendation(s)

- (1)** That Cabinet withdraws the proposal to locate a new Artificial Turf Pitch at Newbold Comyn and asks officers to keep the provision of appropriate artificial and natural facilities for football under review.
 - (2)** That Cabinet withdraws the application to the Football Foundation for grant funding to support the proposal to locate a new Artificial Turf Pitch at Newbold Comyn.
 - (3)** That Cabinet asks officers to bring forward costed proposals for the refurbishment of the pavilion at Newbold Comyn to the Newbold Comyn Project Board and the Cabinet if necessary to ensure that it is fit for purpose for the existing and future users of the facility for the foreseeable future.
-

1 Reasons for the Recommendations

1.1 Recommendation 1

- 1.1.1 It is recommended that the proposal to locate a new Artificial Turf Pitch (ATP) for football at Newbold Comyn be withdrawn. This conclusion has been reached by officers following a balanced Gateway Review of the current situation with regard to the project. The key elements in the proposal to withdraw this proposal are as follows:
 - 1.1.1.1 Support for the ATP from football clubs and the public has been lukewarm and mixed. This has not improved as the project has been developed over time, and the football clubs, in particular, remain very uncommitted to the proposal.
 - 1.1.1.2 The location of the pitch is not considered by officers to be appropriate for several reasons. Grass pitches will be lost at the main site for football in the District. Managing the facility will be difficult in such a remote location. Providing First Aid cover and site supervision will be costly. Staff working at the site will be isolated and vulnerable. These issues have become clearer as the management arrangements for the proposal have been identified.
 - 1.1.1.3 There are no examples nationally of ATPs in such an isolated location.
 - 1.1.1.4 There are additional costs for paths, cycleways, lighting and security cameras that have become evident as the design has developed. These would be costly and they contribute to making the proposal poor value for money.

1.1.1.5 The proposal would cost the Council in the region of £2,000,000, which is considered unaffordable. This cost has only been clarified as the project design has been developed. The Council has a maximum of £400,000 in funding available from Section 106 sources, and much of this has not yet been received from developers. Bridge funding would therefore be required.

1.2 **Recommendation 2**

1.2.1 The Council has been working with the Football Foundation for over a year on the proposals at Newbold Comyn. The Football Foundation has indicated that it was minded to provide a substantial grant to the project, provided that certain criteria were met.

1.2.2 These criteria, whilst perfectly reasonable, would add to both the capital and revenue costs of the project. The Football Foundation would require that at least two of the changing rooms in the pavilion were refurbished to modern standards. They would prefer that all the changing rooms were refurbished to the same standard. Refurbishing the 12 changing rooms that officers believe are required at this site would cost around £2,000,000, which is more than the Council is able to allocate to this project.

1.2.3 The Football Foundation would also require that the facility is staffed during all opening hours. As the facility is over 600 metres away from the Newbold Comyn Leisure Centre this would mean that a specific member of staff would need to be present at all opening times, which would increase costs and reduce profitability.

1.2.4 The Football Foundation has indicated that a withdrawal from the grant application process this late in the process will mean that they will have to charge the Council for various expenses that they have incurred. They did inform the Council of this when the previous decision was made to go ahead. This sum has not yet been assessed, but it is likely to be between £10,000 and £20,000. This sum will have to be found from Section 106 funding.

1.3 **Recommendation 3**

1.3.1 The pavilion at Newbold Comyn serves the football teams using the grass pitches at the site. It also serves the participants in the weekly Parkrun on the site, and several other community groups that use the site. It needs some immediate maintenance to comply with various regulatory requirements. This work is being commissioned at the present time. It would also be preferable if some additional refurbishment was undertaken to the existing building to improve conditions for its users.

1.3.2 However, it is considered that a full-scale strip and refurbish, along with an extension, which would be necessary to produce the 12 changing rooms that are required by the existing teams to full Football Foundation recommended standards would be unaffordable. This has been quoted at around £2,000,000 and the Council does not have sufficient funds to allocate that amount to this work.

1.3.3 It is therefore proposed that officers survey the existing building and come forward with a costed proposal for appropriate refurbishment of the existing facilities that improves the existing building within the limited funding available for this work.

1.3.4 The cost of this work will be ascertained when the proposals are prepared. There are several ways to approach this task and there may be some external funding available. This Recommendation therefore requests that the proposals

are brought back to the Newbold Comyn Project Board for approval, and only brought back to Cabinet if the level of funding needed requires it.

- 1.3.5 The Council had retained Pick Everard to provide project management services for the major refurbishment and extension of the pavilion. Their services will no longer be required for the more modest refurbishment now proposed. They will be paid for their services to date. This is expected to be between £7,500 and £21,000. This will need to be found from Section 106 funding.
- 1.3.6 In addition, the Council has paid for early architectural designs, two ecology studies and a traffic survey in connection to the project. The total for these works is £10,982.60. This will also need to be found from Section 106 funding.

2 Alternative Options

- 2.1 It would be possible to continue with the proposal and with the application for grant funding from the Football Foundation. However, the Gateway Review has demonstrated that this would not be an appropriate location for an ATP, and the Council is not able to spend the necessary amount to fully refurbish and extend the pavilion to the extent that would be required.
- 2.2 There are emerging proposals for new sporting facilities in the District. These are in the very early stages, but it is possible that they may eventually lead to new proposals for an ATP to serve the north Leamington area. Councillors and officers will engage in the organisations developing these proposals and monitor their progress as part of the assessment of how best we might provide an ATP for this area of the District.
- 2.3 Withdrawing the proposal for a new ATP at Newbold Comyn will free up Section 106 monies for other projects that will encourage people to adopt healthy lifestyles.

3 Legal Implications

- 3.1 The Council entered into the Procurement Framework managed by the Football Foundation as part of the grant application process, having previously been a client of the same framework for the facility at Racing Club Warwick. However, this does not place any requirements upon the Council and so it is easy to withdraw from this Framework.
- 3.2 When the Leadership Coordination Group gave permission for this project to proceed on 18th September 2023 the Council agreed by exchange of emails with the Football Foundation that it would be liable for any costs incurred by the Football Foundation in progressing this application beyond that point. The Football Foundation has agreed to provide a breakdown of these abortive costs, if the Council withdraws its application, and the Council has agreed to pay them. It is considered likely that these costs will be between £10,000 and £20,000.
- 3.3 In addition, the Council has already spent money on surveys and design work, but all these pieces of work are complete.
- 3.4 The Council will need to pay Pick Everard for their project management services to date. There is no contract with Pick Everard to require any additional severance payments to the company. This cost is likely to be between £7,500 and £21,000. This will need to be funded Section 106 funding.
- 3.5 The Council will then have no further legal commitments to any party in this matter.

4 Financial Services

- 4.1 The Council will be obliged to pay the abortive costs of the Football Foundation in progressing this grant application. This is expected to be between £10,000 and £20,000. This will have to be found from Section 106 funding.
- 4.2 The Council will also be obliged to pay Pick Everard for the services so far provided for project management of the pavilion refurbishment. This is expected to be between £7,500 and £21,000 and will need to be found from Section 106 funding.
- 4.3 In addition, the Council has paid for early architectural designs, two ecology studies and a traffic survey in connection to the project. The total for these works is £10,982.60. This will also need to be found from Section 106 funding.
- 4.4 At its meeting on 6th July 2022 the Cabinet agreed "(3) That Cabinet approves the expenditure of a sum not to exceed £60,000 from s106 funds received by the Council on project development activities in support of the project to construct a new artificial turf pitch (ATP) for football at the Newbold Comyn football pitch site, such that a further report can be made to Cabinet to seek funding for the fully prepared scheme in due course." This funding can therefore be made available for the project development activities undertaken on this project to date, albeit that the project development is now considered abortive.
- 4.5 The essential maintenance to the pavilion, which is being progressed at this time, will be paid for from the Corporate Maintenance budget. Any further refurbishment of the existing facilities will need to be paid for from Section 106 monies received by the Council from developers. There is potentially £400,000 available from this source. However, only £170,000 of this has been received by the Council to date. If it is intended to spend any more than this lower sum, then bridging finance will be required until the sums are received from developers.

5 Corporate Strategy

- 5.1 Warwick District Council has adopted a Corporate Strategy which sets three strategic aims for the organisation.
- 5.2 Delivering valued, sustainable services – the withdrawal of this project will mean that more resources are available to deliver valued and sustainable services through other projects.
- 5.3 Low cost, low carbon energy across the district – the scaled-back refurbishment of the pavilion will offer the opportunity to improve the energy performance of the building.
- 5.4 Creating vibrant, safe and healthy communities of the future – improving the current pavilion will encourage people to adopt healthy lifestyles. Withdrawing the proposal for an ATP at Newbold will enable Section 106 monies to be spent on other sporting facilities, which will encourage people to adopt healthy lifestyles.

6 Environmental/Climate Change Implications

- 6.1 The refurbishment of the pavilion provides the opportunity to improve the energy performance of the building.
- 6.2 The withdrawing of the proposal to locate an ATP at Newbold Comyn will remove the possibility of micro-plastics entering the environment from this source in this rural area. The withdrawing of the proposal to install floodlights in this area will reduce concerns of some local people with regard to a potentially negative impact on the night-time ecology of the area.

7 Analysis of the effects on Equality

- 7.1 The refurbishment of the pavilion provides the opportunity to improve the accessibility of the building.

8 Data Protection

- 8.1 There are no data protection implications of this proposal.

9 Health and Wellbeing

- 9.1 The refurbishment of the pavilion will encourage people to adopt healthy lifestyles.
- 9.2 Withdrawing the proposal for an ATP at Newbold will enable Section 106 monies to be spent on other sporting facilities, which will encourage people to adopt healthy lifestyles.

10 Risk Assessment

- 10.1 Withdrawing the proposal to locate an ATP at Newbold Comyn means that there is a risk that there will be no other opportunity to provide an ATP for north Leamington, when the Council's Playing Pitch Strategy says that there is demand for such a facility. This risk will be mitigated by monitoring other opportunities to provide an ATP for this part of the District in the future.
- 10.2 Although this risk is considered unlikely, withdrawing the application to the Football Foundation at this late stage carries the small risk that the organisation will not look favourably on any future application. However, this risk is mitigated by the fact that the Foundation is obliged to judge every application on its merits and so should treat any future application from the Council in the same way as applications from any other organisation.
- 10.3 The scaled-back refurbishment of the existing pavilion carries the risk that the building will remain dated in its design with a potential impact on the quality of the provision for users. This risk will be mitigated by ensuring that any proposal for refurbishment of this facility seeks to optimise the positive impact of any expenditure on the quality of the building.

11 Consultation

- 11.1 These proposals have been considered by the Leadership Coordination Group. It has therefore been considered by both of the Ward Members for the Clarendon Ward at the time of writing this report who remain on the Council at this time, as both are members of Cabinet. It has also been considered by the Newbold Comyn Project Board.

Background papers:

Internal Gateway Review.

Supporting documents:

Warwick District Council Playing Pitch Strategy.