

[www.oxford.gov.uk](http://www.oxford.gov.uk)



**Oxford City Council response  
to Inspectors initial questions  
and comments**

*Question  
12*

July 2019

## Question 12: Sustainable Design and construction

- 12.1 It appears that there are two main parts to this question one relating to the justification for the stepped carbon reduction requirements in RE1 and the other relating to the requirements for monitoring the effectiveness of the policy. Therefore this response addresses these in turn.

### **Question 12: Sustainable Design and Construction (part 1)**

**The evidence base supporting the restrictive carbon emissions requirements in Policy RE1 and the more restrictive requirements from 2026 is not clear. Can the Council point us to the evidence base that supports these specific percentage figures and any feasibility and impact assessment they have carried out to demonstrate the effect of these targets on the Plan’s development objectives and targets?**

- 12.2 The City Council has produced a number of evidence documents to support the percentage figures set out in Policy RE1. The Climate Change, Carbon and Fuel Poverty Background Paper (BGP.4), provides a useful bridge between the raw data of the evidence base and the refined policies and supporting text of the plan itself. Paragraphs 16-24 set out whether higher building standards can be set out in Local Plans.
- 12.3 The Oxford Local Plan 2036 (“The Plan”) was submitted on 22 March 2019. On 1 May 2019, the government at Westminster declared a “climate emergency” and in June 2019 the Climate Change 2008 (2050 Target Amendment) Order 2019 was made. This Order commits the country to a net zero emissions target. This Order has had cross-party support and provides a strong indication of the Government’s direction of travel in this important and emerging policy area.
- 12.4 This response seeks to summarise the change being introduced through the Plan compared to the existing standards operating in Oxford and the building regulations baseline. It sets out the success of the existing policies, which is summarised using data from the Annual Monitoring Reports. This response has sought to address residential and non-residential developments separately in a similar way to the policy.
- 12.5 This response also sets out a suggested modification that seeks to address a drafting error that has led to confusion about the actual uplift brought in by this policy. This confusion is clear from some of the representations received at Regulation 19 stage.

## Current adopted requirements and summary of delivery

- 12.6 Oxford City Council has had a long-standing policy approach of delivering renewable energy and energy efficiency measures as part of new developments. Since 2006, the Natural Resources Impact Analysis SPD has required that new major developments (10 or more homes and 2,000m<sup>2</sup> of new non-residential development) deliver at least 20% of their total energy requirement from on-site renewables and low carbon technology. The Sites and Housing Plan (adopted in 2013 under the NPPF 2012) provided viability-based evidence which tested the costs of providing the following requirements:

*Planning permission will only be granted for qualifying developments where development proposals include at least 20% of their energy needs from on-site renewable or low-carbon technologies...*

- 12.7 The results of the viability testing (undertaken at the time) found that including the requirements of Policy HP11 – Low Carbon homes alongside the other requirements of the plan (50% on-site affordable housing for large sites, etc.) resulted in the majority of sites being viable. The City Council’s Annual Monitoring Report details the continued success of the policy.

*Table 1: Schemes meeting 20% target*

Year	No. of eligible schemes	Total schemes meeting 20% target	Residential schemes meeting 20% target	Non-residential schemes meeting 20% target
2013/14	14	13*	7	6
2014/15	7	7	2	5
2015/16	7	7	5	2
2016/17	9	9	7	2
2017/18	8	8	7	1

*\* One scheme proved technically and financially unfeasible to deliver 20% target through renewables/ low-carbon technologies. Scheme delivered 10% of its energy from renewable/ low-carbon technologies.*

- 12.8 The Annual Monitoring Report statistics demonstrate that meeting the 20% energy target has been a continued success and the majority of qualifying schemes can be seen to have met this target since the Sites and Housing Plan was adopted in 2013.

## Impact Assessment of the Plan’s targets and objectives

- 12.9 Oxford’s proposed policy approach for sustainable design and construction has been tested through the Sustainability Appraisal (SA) process. At the Preferred Options stage, several options were tested for a range of approaches on how best to meet

Government targets set through the Climate Change Act 2008 and manage sustainable design and construction in new (and existing) developments in the city.

- 12.10 The SA of the Preferred Options (CSD.14) provided an assessment against a range of objectives and documented the impacts. Appendix 3.4.1 of the SA of the Preferred Options documents the options assessment tables for options 33 and 34 which assessed Carbon reduction in non-residential and residential developments respectively. The SA recognised that there could be an “additional cost and therefore impact on viability so the policy(ies) would need to be carefully framed...” The Preferred Options SA also considered that the cost of energy technologies would fall with increased uptake.
- 12.11 The Proposed Submission SA (CSD.5) documented any significant changes to the policies of the Plan and appraised them. Policy RE1 was one of the policies appraised. The appraisal summary included a discussion on viability and documented the changes to the policy moving from the Preferred Option stage to the Proposed Submission document. Pages 120-121 of the Proposed Submission document sets out the appraisal table for this policy option and the proposed mitigation measures.
- 12.12 Given the emphasis set out in the SA on viability, the Economic Viability Assessment (hereafter “EVA”) included a robust and credible assessment of the particulars of this policy. This is set out below.

### **Viability Evidence underpinning Policy RE1**

- 12.13 To support the proposed approach in Policy RE1 and ensure that the other policies in the Plan, when combined with these requirements, did not make development unviable (NPPF), the City Council produced an EVA (SUP.3). The results from the viability testing and analysis demonstrate that in the majority of the scenarios tested for the 16 sites the viability remains deliverable even with an increase in CIL rates. Both residential and non-residential developments were assessed as part of the EVA.
- 12.14 Chapter 7 of the EVA sets out the appraisal assumptions that were used to inform the viability assessment. Paragraphs 7.20-7.26 provide a summary of the development costs that were used to inform the EVA. Site-specific infrastructure costs included an uplift cost of 5% above the BCIS level to reflect emerging Council policies in relation to design quality and amenity. It also included an additional allowance of £15,000 per dwelling to reflect policies in relation to sustainability, including renewable energy, car charging points, water efficiency, carbon reduction, air quality and green infrastructure.
- 12.15 The EVA used the increased rate of £15,000 to:
- Reflect Oxford City Council’s increased focus on sustainability in the Plan; and

- Ensure that the potential costs were fully reflected and that calculations remained realistic in line with advice in the NPPF.

12.16 Even with the increased “additional sustainability allowance”, the majority of sites tested in the EVA were financially viable, even with a modest increase in CIL rates. This was confirmed by the financial modelling undertaken as part of the EVA.

12.17 Research was undertaken by Currie and Brown for the Centre for Sustainable Energy published in December 2018 entitled “Cost of carbon reduction in new buildings” (“the CSE study”). The CSE study assessed a range of hypothetical policy options for both residential and non-residential build-costs. For residential development the CSE study looked at the costs of delivering different residential units. Three policy options were assessed in the CSE study all of which provided estimated per unit build costs for zero carbon (regulated). Per unit build costs for zero regulated carbon range from £4,800 to £10,100 per unit. This is well within the allotted £15,000 additional sustainability allowance contained with Oxford City’s EVA. The aforementioned evidence demonstrates clearly that zero carbon (regulated) is viable now.

**Policy RE1 Sustainable Design and Construction: Carbon Reduction in residential development**

12.18 As set out above, the EVA demonstrates that zero carbon developments are viable now however the City Council felt that a pragmatic approach was required regarding the introduction of zero carbon for residential development in order to ensure the successful and effective delivery of the policy. This section provides the rationale behind why the specific percentage figures were chosen for each of the specified years in Policy RE1.

12.19 The ultimate ambition of the Plan is to ensure that residential developments post 31 March 2030 are zero carbon. Given that zero carbon development is viable now, the Plan proposes a mechanism by which its feasibility will be incrementally introduced by a series of step changes that will ultimately deliver zero carbon residential developments by the end of the Plan period.

12.20 Policy RE1 seeks to deliver the maximum viable, deliverable reduction in carbon emissions. The targets within the policy have been arrived through professional judgement, based on a number of inputs including the incremental testing of options through the SA; the EVA; recently amended 2050 climate change targets; consultation responses; and Oxford’s specific challenges such as air quality; the recent declaration of a climate emergency and the need to ensure the continued delivery of much-needed affordable housing in the city.

- 12.21 The need to continue delivering housing, particularly affordable housing, is an important element of why the percentage thresholds were chosen. The following paragraphs set out some of the rationale behind why the particular targets were chosen.
- 12.22 Assuming that the Plan is adopted within five years of its start date, there are a number of deliverable (NPPF definition) sites that would be built out under the existing policy framework. These sites, as can be seen from the Annual Monitoring Report data above (Table 1) have all met the existing policy criteria requiring 20% of the sites total energy to be met through renewable or low carbon technologies. When measured in terms of carbon emissions, the existing 20% energy requirement equates to a reduction of approximately 35% of each particular developments carbon emissions. According to the housing trajectory there are currently over 5,300 residential units which would be delivered using the existing policy framework, 1,160 of which have already been completed. This represents just under half of the total number of residential units in the housing trajectory.
- 12.23 From the adoption date of the Plan there would therefore be an incremental step change from the existing policy framework (35% reduction in carbon emissions) to the requirement of Policy RE1 for a 40% reduction in carbon emissions. The City Council considers this to be a small and manageable step for the industry to meet. This incremental step would run from adoption of the Plan until 31 March 2026 (years 6-10 of the Plan period) for which the NPPF requires there to be developable sites. The NPPF Glossary states “to be considered developable, sites should be in a suitable location for development with a reasonable prospect that they will be available and could be viably developed at the point envisaged.”
- 12.24 The next step change (in years 11-15 of the Plan period) would require a 50% reduction in carbon emissions. Housing sites to be brought forward in this period also have to be “developable” in line with the NPPF definition set out above. This would take effect from 31 March 2026, which is ten years after the start of the Plan period.
- 12.25 The final step up within the policy is to zero carbon which is from 31 March 2030. This date was chosen as it aligns with the objectives for the emerging Oxford Energy Strategy, as well as the recently adopted City Council motion declaring a ‘Climate Emergency’. The year 2030 is also cited as a key milestone towards the Government’s ambition to achieve zero carbon by 2050.<sup>1</sup>

---

<sup>1</sup> National carbon reduction targets were recently amended by the Climate Change Act 2008 (2050 Target Amendment) Order 2019. The impact of this amendment was to increase the reduction of carbon emissions from 80% to 100% by 2050

## **Suggested Modification to Policy RE1: Carbon reduction from residential developments**

- 12.26 Policy RE1 as written requires a 40% reduction in carbon emissions from a *code compliant base case*. This was a drafting error. Representations made at the Regulation 19 consultation stage queried what a “code compliant” base case was. This modification would ensure the policy is accurate and therefore effective in terms of soundness.
- 12.27 The text of Policy RE1 was supposed to refer to a *Building Regulation compliant base case*. A reduction of 40% of carbon emissions from a Building Regulation compliant base case would equate to around a 25% reduction in total energy. This is a small step up from the existing 20% target, which has been shown to be performing well (see Table 1, above). The reduction in carbon emissions is intended to be measured against the current and most up-to-date version of the Building Regulations. This is currently the Building Regulations 2013. The modification to the Plan includes wording to ensure that this is made clear.
- 12.28 The City Council is confident that the following modification will provide clarity in order that Policy RE1 satisfactorily addresses this issue. The following modification to Policy RE1 is therefore proposed:

*Planning permission will only be granted for development proposals for new build residential dwellinghouses or 1,000m<sup>2</sup> or more of C2 and (including student accommodation), C4 HMO or Sui Generis HMO floorspace developments (or 25 student rooms or more) which achieve at least a 40% reduction in ~~the~~ carbon emissions from a ~~code~~ 2013 Building Regulations (or future equivalent legislation) compliant base case. This reduction is to be secured through on-site renewable energy and other low carbon technologies (this would broadly be equivalent to 25% of all energy used) and/ or energy efficiency measures. The requirement will increase from 31 March 2026 to at least a 50% reduction in carbon emissions. After 31 March 2030 planning permission will only be granted for development proposals for new build residential dwellinghouses or 1,000m<sup>2</sup> or more of C2 (including student accommodation), C4 HMO or Sui Generis HMO floorspace residential and student accommodation (25 or more non self-contained student rooms) development that is are Zero Carbon.*

*~~An Energy Statement will be submitted on schemes of five or more residential dwellings or 1,000m<sup>2</sup>. The Energy Statement will include details as to how the policy will be complied with monitored once installed.~~*

## **Carbon reduction in non-residential development**

12.29 The majority of this response has discussed carbon reduction in residential development. However this section looks at carbon reduction in non-residential development, which has also been a long-standing policy approach of the City Council.

### **Background**

12.30 The Natural Resources Impact Analysis Supplementary Planning Document (introduced in 2006) included a requirement for non-residential developments of 2,000m<sup>2</sup> or more non-residential floorspace to deliver at least 20% of their total energy requirement from on-site renewables and low carbon technologies.

12.31 Table 1 above shows both the residential and non-residential-led schemes meeting the 20% energy targets. The table clearly shows that all non-residential schemes submitted met the energy targets.

### **Policy RE1 Sustainable Design and construction: Carbon reduction from non-residential development**

12.32 As explained above, the existing policy framework requires 20% of the total energy to be provided in the form of renewable or low-carbon technologies, which equates to a 35% reduction in carbon emissions from a Building Regulation compliant base case.

12.33 The viability evidence (EVA) submitted alongside the Plan demonstrates that, for larger non-residential developments, zero carbon is viable. As such, this part of the policy requires both BREEAM excellent and a 40% reduction in carbon emissions for non-residential developments of 1,000m<sup>2</sup> or more floorspace. The floorspace threshold was chosen to align this part of the policy with the NPPF floorspace definition for major developments.

12.34 Policy RE1 requires that non-residential proposals over 1,000m<sup>2</sup> floorspace to achieve at least a 40% reduction in the carbon emissions compared with a code compliant base case. As stated above, this was a drafting error and the text should read as follows:

*Planning permission will only be granted for development proposals ~~over~~ of 1,000m<sup>2</sup> or more which achieve at least a 40% reduction in the carbon emissions compared with a ~~code-2013~~ Building Regulations (or future equivalent legislation) compliant base case. This reduction is to be secured through on-site renewables and other low carbon technologies and/ or energy efficiency measures. The requirement will increase from 31 March 2026 to at least a 50% reduction in carbon emissions.*

- 12.35 As with the policy targets for residential development, professional judgement was used when determining the specific percentage targets for non-residential developments. This was based on a range of factors, which include, having regard to targets set through national legislation; representations made as part of the plan-making process; options testing through the SA; the EVA and Oxford's specific challenges such as air quality; and the recent declaration of a climate emergency.
- 12.36 Representations made as part of the Regulation 19 consultation stage "support the overall stance with the policy to continue to push for highly sustainable buildings" however some consider that the "technical feasibility and financial viability of achieving this level of BREEAM, and reduction in carbon emissions, are too stringent..."
- 12.37 It is worth noting that the policy submitted, does appear as a more stringent requirement than was originally intended due to a drafting error (see earlier section setting out a suggested modification). The original policy as set out at the Regulation 19 consultation required an additional 19% reduction in carbon emissions compared with the Building Regulations. As set out above, this was drafted in error and an amendment has been proposed to re-align the wording with its original intention.
- 12.38 In terms of the carbon emissions element of the policy, one representation suggested that a 20% carbon reduction over and above the additional 19% required by the code compliant base case would be acceptable. This equates to a 39% reduction in carbon emissions when compared with a 2013 Building Regulation compliant base case. The suggested modification made as part of answer to this question sets out that up to 31 March 2026, the carbon reduction when compared to a Building Regulation compliant base case would be 40%. It is suggested that the proposed modifications to this element of the policy would align it with what is being proposed as acceptable, which was actually the original intention of the policy.
- 12.39 Research undertaken by BREEAM on the additional capital costs of delivering BREEAM 'Excellent' over and above the costs of achieving BREEAM 'Very Good' are set out in a BREEAM publication from November 2016<sup>2</sup>. According to this document, increases in non-residential capital costs for BREEAM excellent range from 0.4% - 1.8%. Given that the EVA already includes an additional 5% cost for design and amenity considerations as well as an additional cost for sustainability considerations, the overall implications of BREEAM are not considered to be overly onerous and the City Council considers that this element of the policy is financially viable and technically feasible.

---

<sup>2</sup> BREEAM (2016), The value of BREEAM : A review of the latest thinking in the commercial building sector <https://tools.breeam.com/filelibrary/Briefing%20Papers/BREEAM-Briefing-Paper----The-Value-of-BREEAM--November-2016----123864.pdf>

12.40 The City Council considers that there is justification for the 40% reduction in carbon emissions at the start of the Plan period. The EVA provides sound viability evidence that the policy approach would be achievable.

12.41 The increased reduction to 50% post 31 March 2026 is also considered achievable given the high additional sustainability costs set out in the EVA.

### **Conclusions on Part 1 of the Inspectors question**

12.42 Oxford City Council considers that there are economic, social and environmental benefits of introducing Policy RE1 which supports a financially justified commitment to zero carbon development within the Plan period. Zero carbon is clearly on the agenda for central government and the City Council's approach is aligned with several recent government announcements including the declaration of a climate emergency and the cross-party support for the Climate Change 2008 (2050 Target Amendment) Order 2019.

12.43 Very few authorities have pushed for such stringent requirements outside of London. The City Council has been working with our own housing company to find the best transition to zero carbon and the step-change proposed by the policy and this, alongside wider stakeholder consultation has resulted in the targets and dates set out in the Plan. Oxford City considers that zero carbon is possible now and these targets and dates represent the most appropriate direction of travel to ensure that new developments in Oxford are resilient to the challenges of the future while being deliverable and technically feasible.

### **Question 12: Sustainable Design and Construction (Part 2)**

***The requirement for developments to install energy metering and equipment in private non-residential premises for the Council's energy monitoring purposes would appear to be a breach of privacy and we are minded to recommend the deletion of this element of the policy. The Council are invited to comment.***

12.44 The purpose of this element of the policy is to monitor the effectiveness of the carbon reduction measures proposed for qualifying residential and non-residential developments. This is to ensure that the policy is effective.

12.45 The Building Regulations 2010 L2A Conservation of Fuel and Power in new buildings other than dwellings require for new non-domestic buildings over 1,000m<sup>2</sup>, that automatic meter reading and data collection facilities are provided. The requirement for energy meters also features under the BREEAM accreditation scheme for levels 'Very Good', 'Excellent' and 'Outstanding'.

- 12.46 Display Energy Certificates (DECs) are required for public buildings over 250m<sup>2</sup> which are at least partly occupied by a public authority and which are frequently visited by the public. DECs last for one year for buildings with a useable floor area of over 1,000m<sup>2</sup>.
- 12.47 The policy would introduce a requirement for qualifying developments including non-residential development over 1,000m<sup>2</sup> to produce DECs and share that information with the Council. This would be to ensure that the building was performing as with the expectation that the Building will be performing to a DEC rating of A by the end of the three year period. This is purely to enable the policy is monitored to ensure it is effective.
- 12.48 The purpose of the requirement in Policy RE1 to “install appropriate energy metering and monitoring equipment” is to ensure that the energy/ performance gap between the design stage and the use of the building in practice. This is important to ensure that the policy is delivering in practice, what has been proposed as part of planning application.
- 12.49 The Building Regulations requirement for a Display Energy Certificate (DEC) is currently mandatory for qualifying public buildings and voluntary for private buildings. DECs provide an energy rating of the Building from A to G, where A is very efficient and G is the least efficient. They are based on the actual amount of metered energy used by the building over the past 12 months. Policy RE1 would make the production of a DEC a requirement for non-residential, C2 (including student accommodation), C4 HMO and Sui Generis HMO developments of 1,000m<sup>2</sup> or more thus aligning it with the requirements as set out above, under the Building Regulations.

### **Privacy Issues**

- 12.50 We do not consider this requirement to introduce privacy issues. The Government is in the process of developing and delivering a “Smart Metering Implementation Programme” as part of the Industrial Strategy. We are aware that, in November 2018 a review of the Data Access and Privacy Framework<sup>3</sup> was undertaken. This primarily relates to privacy issues for individuals and micro-businesses. In fact, at paragraph 2.1 the report states:

*“Detailed energy consumption data from smart meters installed in domestic and microbusiness premises is likely to be ‘personal data’, for the purposes of data protection legislation. The protection of personal data is governed by a new data protection regime, which incorporates the Data Protection Act 2018 and the General*

---

<sup>3</sup> <https://www.gov.uk/government/publications/smart-metering-implementation-programme-review-of-the-data-access-and-privacy-framework>

*Data Protection Regulation (GDPR). This regime came into force on the 25th May 2018.”*

- 12.51 The issue of privacy is therefore of concern, for data sharing with electricity companies and third parties in relation to private non-residential micro-businesses and individuals. The Government has addressed this concern by prohibiting energy companies from accessing energy consumption data from microbusinesses “at a level more granular than monthly”, unless agreement between the energy company and micro-business has been reached.
- 12.52 We do not consider that the amended wording in Policy RE1 breaches this test. The City Council would require the production of a Display Energy Certificate annually for the three years after occupation of the building. This would therefore not be at a frequency to trigger this concern according to the Government guidance.

#### **Option for Policy RE1 modification**

- 12.53 As a result of the above, the City Council proposes the following modifications in order to ensure that privacy issues are not a concern. The modifications would be less onerous than the wording in the original policy. The policy simply seeks for the information already being gathered through the data collection requirements of Building Regulations and those required for BREEAM, to be shared annually with the City Council. The policy monitoring in the Annual Monitoring report would be appropriately anonymised. This reporting would be presented as an overall assessment i.e. not building specific.

*To ensure that the Council can monitor the effectiveness of renewable and low carbon technologies, for the purposes of this policy, non-residential, C2, and C4 and Sui Generis developments of 1000m<sup>2</sup> or more will be required to install appropriate energy metering and monitoring equipment. and a Display Energy Certificate (DEC). The DEC would be secured by planning condition. Planning obligations will require (through the production of a Display Energy Certificate), the applicant to provide annual energy consumption data to demonstrate the effectiveness of the carbon reduction measures proposed through the development. DEC assessments must be made available to the Council for the three years after occupation and a DEC rating of A will be expected by the end of the three year period. C3 developments will be required to install appropriate energy metering (smart meters).*

#### **Review of Policy RE1 to ensure internal consistency following proposed modifications**

- 12.54 Following on from the proposed modifications to Policy RE1 set out previously in the answer to this question, a careful review of the policy and supporting text has been undertaken. The review was to ensure that the policy and supporting text fully

reflected the proposed changes; to ensure that the policy and supporting text were fully aligned with recent legislative changes; and to ensure that the policy is both legible and internally consistent.

12.55 This review has brought to light several additional modifications, which will be addressed one at a time. Where a modification is proposed, it will be accompanied by a narrative and reasons as to why it is being proposed. Additional proposed text will be underlined and text proposed for deletion will be ~~struck through~~.

12.56 Following the recent amendment to the legally binding carbon reduction targets as set out in the Climate Change Act 2008 (2050 Target Amendment) Order 2019, paragraph 4.1 of the supporting text to Policy RE1 should be updated. This is purely a factual clarification to reflect the recent (June 2019) amendment to the Climate Change Act 2008. It is therefore proposed that paragraph 4.1 is modified as follows:

*“4.1 The City Council aims to tackle the causes of climate change by ensuring developments use less energy and assess the opportunities for using renewable energy technologies. The City Council is committed to ~~exceed an 80% a~~ 100% reduction in total carbon dioxide emissions produced in the City by 2050 from 1990 levels to limit climate change.”*

12.57 Policy RE1 requires an Energy Statement, which “will include details as to how the policy will be complied with and monitored...”. Given that monitoring is required for both residential and non-residential developments, it was the original intention of the policy that an Energy Statement be provided alongside both residential and non-residential developments. It appears that in the original drafting of the policy, this intention has not been made clear. The policy text on Energy Statements requires its own sub-heading. As such, a modification to the ordering of the policy has been proposed as follows:

*“g) Incorporating measures to enhance biodiversity value*

#### **Energy Statements**

**An Energy Statement will be submitted to demonstrate compliance with this policy. ~~on schemes of five more residential dwellings or 1000m<sup>2</sup>. The Energy Statement will include details as to how the policy will be complied with and monitored once installed.~~**

12.58 The preceding discussion regarding Energy Statements suggests a policy amendment. Should the Inspector be minded to accept this modification, then paragraph 4.4 of the supporting text would also require a modification to ensure internal consistency between the policy and supporting text. The policy also contains existing wording in relation to residential thresholds for energy statements. This proposed modification is

to align the policy and supporting text. Paragraph 4.4 is proposed to be modified as follows:

*“4.4 The local plan supports the monitoring ~~on schemes (threshold 5+ dwellings or 1,000m<sup>2</sup>)~~ of development proposals in the form of post construction testing in order to improve our understanding of these issues and also to ensure that performance standards are linked to as-built performance.”*

***Carbon Reduction in new-build residential developments (other than householder applications):”***

12.59 In addressing the 2<sup>nd</sup> part of Question 12, a review of the wording in the paragraph on “carbon reduction in new build residential developments” in Policy RE1, revealed a requirement for further modifications to provide factual clarity and internal consistency between these paragraphs of the policy. The modifications are set out below:

*Planning permission will only be granted for development proposals for new build residential dwellinghouses or 1,000m<sup>2</sup> or more of C2 (including student accommodation), C4 HMO or Sui Generis HMO floorspace and student accommodation developments (or 25 student rooms or more) which achieve at least a 40% reduction in ~~the~~ carbon emissions from a 2013 Building Regulations (or future equivalent legislation) ~~and~~ compliant base case. This reduction is to be secured through on-site renewable energy and other low carbon technologies (this would broadly be equivalent to 25% of all energy used) and/ or energy efficiency measures. The requirement will increase from 31 March 2026 to at least a 50% reduction in carbon emissions. After 31 March 2030 planning permission will only be granted for development proposals for new build residential dwellinghouses or 1,000m<sup>2</sup> or more of C2 (including student accommodation), C4 HMO or Sui Generis HMO floorspace residential and student accommodation (25 or more non self-contained student rooms) development that is are Zero Carbon.*

*An Energy Statement will be submitted ~~on schemes of five or more residential dwellings or 1,000m<sup>2</sup>~~. The Energy Statement will include details as to how the policy will be complied with ~~monitored once installed.~~*

***Carbon reduction in new-build non-residential schemes over 1,000m<sup>2</sup>***

12.60 To ensure alignment with the proposed modifications to address Part 2 of Question 12, it is necessary to amend the wording to the non-residential subheading in Policy RE1 as follows: “Carbon reduction in new-build non-residential developments ~~schemes of over~~ 1,000m<sup>2</sup> or more”. This is to ensure that the thresholds in this element of the policy align directly with the floorspace threshold for major developments as set out in the glossary of the Plan and the NPPF.

***“Carbon reduction in new-build non residential developments schemes of over 1,000m<sup>2</sup> or more:***

*Planning permission will only be granted for non-residential development proposals that meet BREEAM excellent standard (or recognised equivalent assessment methodology) in addition to the following reductions in carbon emissions which are also required.*

*Planning permission will only be granted for development proposals ~~over~~ of 1,000m<sup>2</sup> or more which achieve at least a 40% reduction in the carbon emissions compared with a ~~code~~ 2013 Building Regulations (of future equivalent legislation) compliant base case. This reduction is to be secured through on-site renewables and other low carbon technologies and/ or energy efficiency measures. The requirement will increase from 31 March 2026 to at least a 50% reduction in carbon emissions.”*

- 12.61 Finally in order to ensure that the policy wording relating to “heat networks” does not specifically and directly relate to carbon reduction in new-build non residential section of the policy, it is proposed that this text be moved so as to benefit from its own sub heading. Other than the sub heading no additional text is proposed.

*...C3 developments will be required to install appropriate energy metering (smart meters).*

#### **Heat networks**

*The City Council will encourage the development of city wide heat networks. If a heat network exists in close proximity to a scheme it is expected to connect to it and this will count towards the development’s carbon reduction requirements. Evidence will be required to demonstrate why connection to the network is not possible.*

#### **Water efficiency – residential development...**

- 12.62 In summary, the final wording of Policy RE1 should read as follows. Where new text has been added the words are underlined. Where text is deleted, the words have been ~~struck through~~. Where wording has been moved from elsewhere it has been highlighted.

#### **Policy RE1: Sustainable design and construction**

*Planning permission will only be granted where it can be demonstrated that the following sustainable design and construction principles have been incorporated, where relevant:*

- a) Maximising energy efficiency and the use of low carbon energy;*
- b) Conserving water and maximising water efficiency;*
- c) Using recycled and recyclable materials and sourcing them responsibly;*
- d) Minimising waste and maximising recycling during construction;*
- e) Minimising flood risk including flood resilient construction;*
- f) Being flexible and adaptable to future occupier needs; and*
- g) Incorporating measures to enhance biodiversity value.*

### **Energy Statements**

~~An Energy Statement will be submitted to demonstrate compliance with this policy. On schemes of five or more residential dwellings or 1000m<sup>2</sup>. The Energy Statement will include details as to how the policy will be complied with and monitored once installed.~~

#### **Carbon reduction in new-build residential developments (other than householder applications):**

~~Planning permission will only be granted for development proposals for new build residential dwellinghouses or 1,000m<sup>2</sup> or more of C2 (including student accommodation), C4 HMO or Sui Generis HMO floorspace and student accommodation developments (or 25 student rooms or more) which achieve at least a 40% reduction in the carbon emissions from a 2013 Building Regulations (or future equivalent legislation) ~~code~~ compliant base case. This reduction is to be secured through on-site renewable energy and other low carbon technologies (this would broadly be equivalent to 25% of all energy used) and/ or energy efficiency measures. The requirement will increase from 31 March 2026 to at least a 50% reduction in carbon emissions. After 31 March 2030 planning permission will only be granted for development proposals for new build residential dwellinghouses or 1,000m<sup>2</sup> or more of C2 (including student accommodation), C4 HMO or Sui Generis HMO floorspace residential and student accommodation (25 or more non self-contained student rooms) development that is are Zero Carbon.~~

~~An Energy Statement will be submitted on schemes of five or more residential dwellings or 1,000m<sup>2</sup>. The Energy Statement will include details as to how the policy will be complied with monitored once installed.~~

#### **Carbon reduction in new-build non-residential developments schemes of over 1,000m<sup>2</sup> or more:**

~~Planning permission will only be granted for non-residential development proposals that meet BREEAM excellent standard (or recognised equivalent assessment methodology) in addition to the following reductions in carbon emissions which are also required.~~

~~Planning permission will only be granted for development proposals ~~over~~ of 1,000m<sup>2</sup> or more which achieve at least a 40% reduction in the carbon emissions compared with a ~~code~~ 2013 Building Regulations (of future equivalent legislation) compliant base case. This reduction is to be secured through on-site renewables and other low carbon technologies and/ or energy efficiency measures. The requirement will increase from 31 March 2026 to at least a 50% reduction in carbon emissions.~~

~~The City Council will encourage the development of city wide heat networks. If a heat network exists in close proximity to a scheme it is expected to connect to it and this will count towards the development's carbon reduction requirements. Evidence will be required to demonstrate why connection to the network is not possible.~~

### **Monitoring**

*To ensure that the Council can monitor the effectiveness of renewable and low carbon technologies, for the purposes of this policy, non-residential, C2, and C4 and Sui Generis developments of 1000m<sup>2</sup> or more will be required to install appropriate energy metering and monitoring equipment. ~~and a Display Energy Certificate (DEC). The DEC would be secured by planning condition.~~ Planning obligations will require (through the production of a Display Energy Certificate), the applicant to provide annual energy consumption data to demonstrate the effectiveness of the carbon reduction measures proposed through the development. DEC assessments must be made available to the Council for the three years after occupation and a DEC rating of A will be expected by the end of the three year period. C3 developments will be required to install appropriate energy metering (smart meters).*

### **Heat networks**

*The City Council will encourage the development of city wide heat networks. If a heat network exists in close proximity to a scheme it is expected to connect to it and this will count towards the development's carbon reduction requirements. Evidence will be required to demonstrate why connection to the network is not possible.*

### **Water efficiency – residential development:**

*Proposals for new residential developments are to meet the higher water efficiency standards within the 2013 Building Regulations (or equivalent future legislation) Part G2 of water consumption target of 110 litres per person per day.*

### **Water efficiency – non-residential development:**

*Proposals for non-residential development are to meet the minimum standard of four credits under the BREEAM assessment.*