

## Housing & Land Delivery Board

<b>Date</b>	7 July 2021
<b>Report title</b>	Future Homes Standard and Zero Carbon Homes: West Midlands as a UK Pioneer
<b>Portfolio Lead</b>	Housing & Land - Councillor Mike Bird
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<b>Report has been considered by</b>	A draft version of this report was considered and endorsed by Housing & Land Steering Group - 16 June 2021

### Recommendation(s) for action or decision:

The Housing & Land Delivery Board is asked to:

- (1) **Note** the purpose and requirements of the upcoming Future Homes Standard (FHS) and identified approaches for achieving these requirements.
- (2) **Note and consider** the potential implications of the Future Homes Standard (FHS) for future development in the region
- (3) **Consider and endorse** the proposal for WMCA to implement its identified zero carbon targets to a) achieve the FHS and b) go beyond the FHS requirements on new development.

- (4) **Consider and endorse** the intention to **prepare an investment case to government** to ease and accelerate the transition to zero carbon building in the region which is a key intervention of the approved Housing and Land Portfolio COVID-19 Recovery Plan and is a major deliverable in the Housing & Land Delivery Board's 2021/22 Deliverables.
- (5) **Consider and endorse** the intention to engage the Zero Carbon Homes Officer Working Group and our industry-led Taskforce over coming months as WMCA refines its approach to going beyond the Future Homes Standard and the investment case for this work.

## 1.0 Purpose

1.1 The purpose of this paper is to seek comments on, and endorsement of:

- The known upcoming changes to Building Regulations, covered by the Future Homes Standard (FHS), and the potential implications of these on WMCA's approved Zero Carbon Homes (ZCH) routemap and wider aspirations in relation to the 2041 agenda.
- The proposal to include zero carbon requirements and supporting guidance, as detailed in the ZCH routemap, within the Single Commissioning Framework.

## 2.0 Background

2.1 In the 2019 Spring Statement, the **Government announced its intention to introduce the 2025 Future Home Standard (FHS)**. The standard would apply to all new build homes, non-domestic buildings and home expansions in England. Similar standards are expected to be introduced elsewhere but with different deadlines. The aim is to future proof homes by delivering low carbon heating and energy efficiency with a goal of a 75-80% reduction in CO<sub>2</sub> emissions. **After its introduction, all new homes will need to be built to this standard as a minimum, though individual local authorities will be permitted to go above and beyond the regulations.**

2.2 In order to ease in the new standard, transitional legislation will be introduced prior to 2025. This will include alterations to Part F (ventilation) and Part L (conservation of fuel and power) of the Building Regulations. The timeline of the transition is detailed below:

- From June 2022: New homes will be expected to produce 31% less CO<sub>2</sub> emissions, to be achieved through carbon saving technology and improvement to the fabric of the building. Further detail on this transition is expected in December 2021.
- From Spring 2023: There is expected to be a further uplift to current standards, following consultation on the full technical specification for the FHS. June 2023 will be the deadline for work to commence on transitional arrangements.
- From 2025: There will be no fossil fuel heating in new 'zero carbon ready' homes and CO<sub>2</sub> emissions must be at least 75% lower than current regulations. New homes will no longer be able to connect to the gas network.

### 3.0 Alignment with the Zero Carbon Homes Routemap

- 3.1 In January 2021, the Housing & Land Delivery Board agreed the principles and contents of the WMCA Zero Carbon Homes Charter (ZCH) and Routemap. These documents have been produced to guide WMCA's approach to meeting its commitment to delivering a ZCH standard by 2025, and to meet net zero carbon by 2041, with an initial series of priority actions identified for implementation in 2021.
- 3.2 **The Routemap identified a number of interim low carbon requirements and aspirational targets to 2025 and beyond.** The purpose of these requirements/targets was to ease the transition to zero carbon: they could support WMCA to make good, early progress on its commitments whilst also providing industry with sufficient visibility of the region's intentions and clear guidance for adapting operations to meet future targets.
- 3.3 If adhered to, these interim requirements would ensure all schemes in which WMCA invests or intervenes meet a standard of net zero operational carbon by 2025. This is in line with the FHS requirement for all new homes to be 'zero carbon ready' from the same year.

### 4.0 Achieving the Future Homes Standard

- 4.1 As the details of the FHS are still emerging, there remain some uncertainties around its specific content. However, it is known that there are several existing approaches which would deliver, or go beyond, the FHS requirements.
- 4.2 One standard which government has already confirmed is a Fabric Energy Efficiency Standard (FEES). This standard is expected to emulate the Fabric First Approach which is already described in a number of industry-exemplar guidance documents. To support developers in the transition to the FHS, as well as to encourage going above and beyond the standard, guidance sets out a number of ways in which the FEES could be achieved. WMCA could look to include some of this guidance within its funding agreements and encourage its adoption through the SCF.
- 4.3 Other industry guidance, such as Passivhaus, RIBA's 2030 challenge and the London Energy Transformation Initiative (LETI) are likely to cover the upcoming changes in both 2022 and 2025 and have measurable performance outcomes. Again, WMCA could seek to reference these models and their specific principles in the SCF to support developers on the FHS/ZCH transition.
- 4.4 To establish its a position as a national leader in the delivery of ZCH, **WMCA could seek to include the FHS requirements within its funding agreements and Single Commissioning Framework** prior to their formal adoption by government in 2025. Based on discussions with developers to date, a number of WMCA's partners are already trialling or adopting low carbon building approaches in response to government's announcement. **This would set a clear marker for WMCA's ambition to be a national pioneer in the delivery of zero carbon homes.**

- 4.5 On this basis, WMCA could look to go above and beyond the FHS in its funding requirements or within the context of a Zero Carbon Homes Commissioned Partnership with specific developers. WMCA could also experience long-term financial benefits, in relation to reducing future retrofitting costs which are estimated at 3-5 times the cost of compliance with current regulations. WMCA has already outlined more aspirational commitments within the ZCH routemap which would take the region beyond the FHS by 2025 and could look to apply these more widely to establish itself as a pioneer.
- 4.6 From conversations to date with developers, WMCA understands that the 2025 target can be achieved primarily through use of Solar PVs and a transition to all-electric power supply. Whilst this is an improvement on current carbon emissions, these interventions alone would neither address embodied emissions nor deliver fabric improvements that limit the need for heating and cooling. This means such homes would place unnecessary demand on the grid in future and would likely require retrofitting. WMCA could establish its position as a national leader by focussing on these 'gaps' in the FHS by placing these additional targets in the SCF while also delivering its ZCH routemap. To ensure that these requirements are not excessively onerous, there will be a specific focus on monitoring the impact of these targets on developer's operations, as well as WMCA's other priorities.

## 5.0 Introducing Low Carbon Requirements to the SCF

- 5.1 The ZCH routemap proposed that, beginning in 2021, an initial set of requirements could be embedded within the Single Commissioning Framework. An extract of the routemap detailing these requirements is provided in Appendix 1. The minimum requirements broadly align with the exemplar industry guidance referenced above. The energy demand target is also in line with the two WMCA-funded best practice schemes identified in the Baseline Gap Analysis report.
- 5.2 These **targets were tested with both the Officer Working Group and ZCH Taskforce** and were deemed to be sufficiently aspirational to pitch the region as a national leader in zero carbon development, whilst also being deliverable in the short and medium terms. On this basis, **it is proposed that WMCA now seeks to embed the minimum requirements within the Single Commissioning Framework as pre-qualification criteria across all sites**. The benefit of the FHS is that it legally enforces environmental standards that will aid the shift towards net zero carbon homes, though the timeline of this legislation is not in line with the region's wider commitment to net zero by 2041. However, the FHS will deliver an 'improved baseline' and limit the uplift required for net zero carbon homes.
- 5.3 A series of aspirational targets which go beyond the minimum requirements were also identified. These could be used when negotiating better energy performance and carbon reductions, or when working with partners who are strongly committed to delivering net zero. Currently, setting targets at this level as pre-qualification requirements could have negative impacts on site viability. That said, while these targets are more challenging to meet, this standard of construction is still entirely deliverable with current technology and could encourage delivery of 'market-making' schemes with sufficiently ambitious development partners.

5.4 It is proposed, therefore, that **the aspirational targets are also included as in the Single Commissioning Framework as desirable criteria**, similar to the way in which the Design Charter is referenced. The impact of these targets would be monitored over coming months, with an initial pipeline of projects which are 'FHS-ready' to be identified as the first phase.

## **6.0 Investment Case for the Zero Carbon Homes Programme**

6.1 To support the regional delivery of the FHS and ZCH, over summer 2021, WMCA will look to prepare an investment case for additional funding to accelerate the transition to low and zero carbon building. This investment case would focus on closing the viability gap between the transitional FHS arrangements and homes which produce zero operational or embodied emissions, thereby establishing the region's position as a national exemplar for delivering affordable, zero carbon homes at scale.

6.2 The purpose of securing this funding would be to develop the capacity of the region to deliver ZCH, lowering the viability gap by providing certainty of pipeline and growing our capacity in ZCH building techniques and materials. As with the investment case produced for the AMC programme, the focus would be two-fold: delivery of truly zero carbon homes on the ground and scaling up of the local industry and infrastructure to pump-prime the market for future delivery.

6.3 The specific interventions will be refined with the ZCH Officer Working Group and Taskforce over coming months, with WMCA seeking to identify a 'prospectus' of sites, education/innovation and commercial interventions for the investment case.

## **7.0 Next Steps**

7.1 Subject to endorsement of the strategy by the Housing & Land Delivery Board, WMCA will embed the minimum requirements and aspirational targets in the SCF for an initial testing period and update the SCF accordingly, during which time the impact of the requirements and aspirational targets will be monitored.

7.2 With the ZCH Officer Working Group and Taskforce, **WMCA will develop the investment case over the Summer months, with a view to completing a first draft version by September 2021.**

## **8.0 Financial Implications**

8.1 There are no direct finance implications from this paper, however there are financial implications to deliver the Zero Carbon Homes Programme funding bids to HMG. In addition, there are potential viability implications for future SCF projects arising from the requirements on developers to meet both the FHS and WMCA aspirational carbon standards. To ensure solid financial stewardship the team will endeavour to utilise internal resource first, only commissioning externally after all the internal options have been exhausted.

8.2 Any WMCA investment to deliver the FHS and ZCH standards and subsequent funding bids to HMG would be governed and administered through the WMCA Single Assurance Framework, Single Commissioning Framework, the Commissions Pathway and in line with the accounting and taxation policies of the WMCA and HMRC.

8.3 To note: WMCA will need to prepare for any additional costs that we may incur on new schemes as the market adapts to changing legislation. This will be particularly prominent following the major change in 2022 and 2025.

## **9.0 Legal Implications**

9.1 Section 113A(1)(a) of the Local Democracy, Economic Development and Construction Act 2009 gives WMCA a power of competence appropriate for the purposes of carrying-out any of its functions. Part 4 of The West Midlands Combined Authority Order 2016 (2016 No 653) confers that the functions relating to any economic development and regeneration in the constituent councils are exercisable by WMCA. Part 3 of The West Midlands Combined Authority (Functions and Amendment) Order 2017 confers functions corresponding to the functions of the Homes and Communities Agency has in relation to the combined area. Paragraph 10 (2) (a) of the 2017 Order confers the function of improving the supply and quality of housing to the Combined Authority, 10 (2) (b) to secure the regeneration or development of land or infrastructure in the combined area, 10 (2)(c) to support in other ways the creation, regeneration or development of communities in the combined area or their continued well-being and 10 (2)(d) confers the function of contributing to the achievement of sustainable development and good design.

9.2 It is noted that the purpose of this paper is to seek comments on, and endorsement of, the upcoming changes to the Building Regulations and implication of these upon WMCA's approved Zero Carbon Homes routemap and aspirations. It is further noted that the required changes are to be embedded in the Single Commissioning Framework as a consideration for WMCA's investment decisions. Hence any requirements arising from this will need to be reflected in the funding agreements on a case-by-case basis.

## **10.0 Equalities Implications**

10.1 There is no equality impact in relation to these reports.

## **11.0 Inclusive Growth Implications**

11.1 The adaptations made in line with the FHS will seek to improve the performance of residential properties across the region as part of wider transition to a more resilient, people-centred low carbon economy. Improving building performance means addressing some of the key impacts of deprivation, such as fuel poverty, reduced levels of comfort and higher risk of disease related to poor air quality. It will also involve limiting exposure to future climate risks. This means that a key output and measure of the programme would be the degree to which it reduces climate inequities related to housing.

11.2 Additionally, the programme would seek to provide new opportunities for local residents and businesses to prosper, through the creation of a low and zero carbon pipeline that brings with it new employment, upskilling and growth opportunities across the region.

## **12.0 Geographical Area of Report's Implications**

12.1 The Future Homes Standard would inform WMCA investment and policy decisions across the whole geography of the WMCA area, including the 3 LEPs and non-constituent Member authorities.

### **13.0 Other Implications**

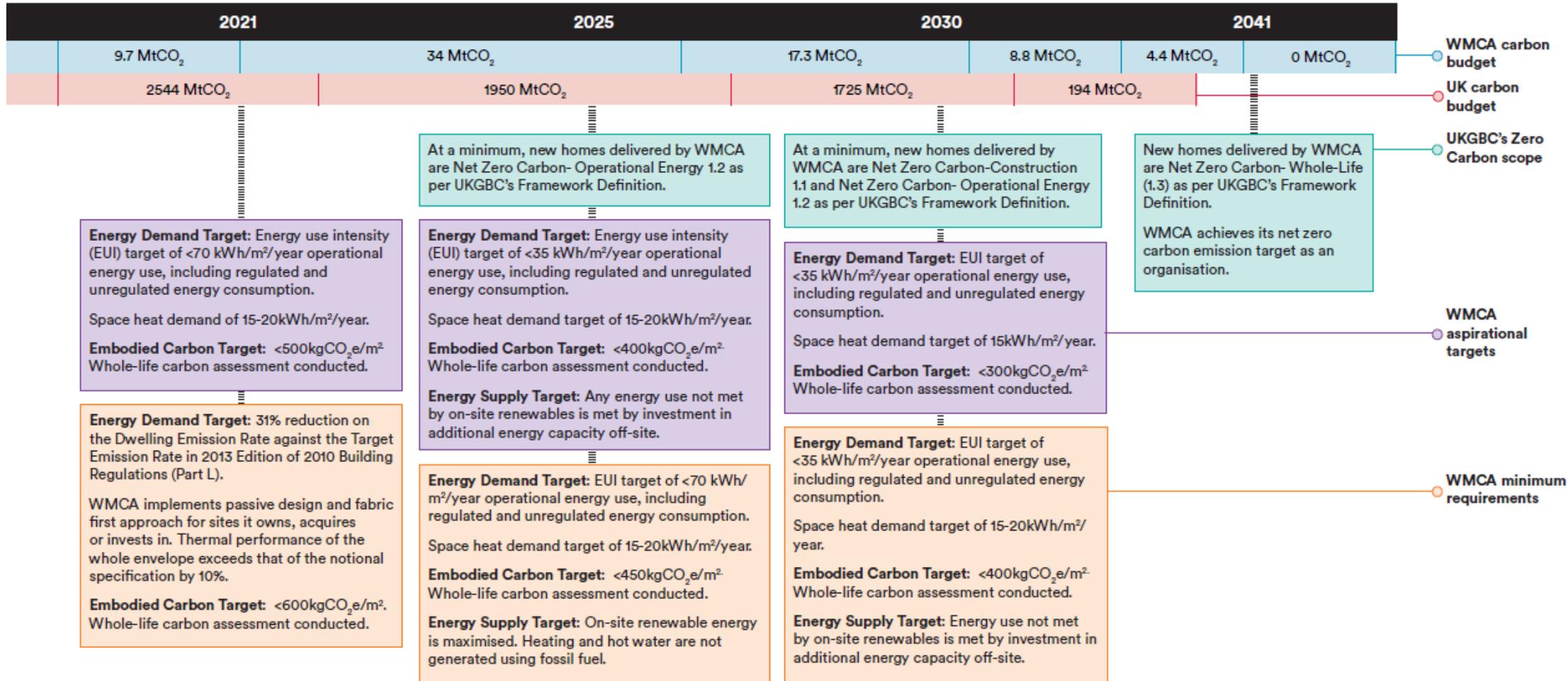
13.1 There are no other implications.

### **14.0 Schedule of Background Papers**

14.1 There are no background papers.

Included for information

# Appendix 1 – Zero Carbon Homes Routemap Extract



Included

## Appendix 2 – Zero Carbon Homes Routemap and Future Homes Standard Comparison

	<b>ZCH Routemap</b>	<b>Future Homes Standard</b>
Floor U-value (W/m <sup>2</sup> .K)	0.08 - 0.10	0.11
External wall U-value (W/m <sup>2</sup> .K)	0.13 - 0.15	0.15
Roof U-value (W/m <sup>2</sup> .K)	0.10 - 0.12	0.11
Window U-value (W/m <sup>2</sup> .K)	0.80 (triple glazing)	0.8
Door U-value (W/m <sup>2</sup> .K)	1.0	1.0
Heating appliance	Ensure heating and hot water generation is fossil fuel free	Low-carbon heating (e.g. Heat pump)
Heat Emitter type	Maximum 10 W/m <sup>2</sup> peak heat loss (including ventilation)	Low temperature heating
Ventilation System type	Maximum 10 W/m <sup>2</sup> peak heat loss (including ventilation)	Natural (with extract fans)