

CLIMATE CHANGE AND ENVIRONMENT SCRUTINY COMMITTEE	AGENDA ITEM No. 6
20 SEPTEMBER 2023	PUBLIC REPORT

Report of:	Adrian Chapman, Executive Director of Place and Economy	
Cabinet Member(s) responsible:	Cllr Nigel Simons, Cabinet Member for Infrastructure, Environment and Climate Change	
Contact Officer(s):	Charlotte Palmer, Head of Environment and Climate Change	Tel. 07920160728

ECO HOMES

RECOMMENDATIONS	
FROM: Adrian Chapman, Executive Director of Place and Economy	Deadline date: N/A
<p>It is recommended that the Climate Change and Environment Scrutiny Committee:</p> <ol style="list-style-type: none"> Review and comment on the proposed approach to the delivery of the Eco Homes project. 	

1. ORIGIN OF REPORT

1.1 The report has been requested by the Climate Change and Environment Scrutiny Committee.

2. PURPOSE AND REASON FOR REPORT

2.1 This report is brought to the Scrutiny Committee to share the proposed approach to the delivery of the Eco Homes project. Councillors are requested to review the approach and provide comments.

2.2 This report is for Climate Change and Environment Scrutiny Committee to consider under its Terms of Reference No. Part 3, Section 4 - Overview and Scrutiny Functions, paragraph No. 2.1, Functions determined by the Council:

4. Climate Change.

5. Reducing Carbon Emissions and achieving Net Zero Carbon Emissions.

3. TIMESCALES

Is this a Major Policy Item/Statutory Plan?	NO	If yes, date for Cabinet meeting	N/A
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4. BACKGROUND AND KEY ISSUES

4.1 As part of the 2023/24 budget setting process the Council agreed to allocate a capital budget of £2m for the development of new Eco Homes within Peterborough. This paper details the process for defining Eco Homes for Peterborough, the draft objectives for this project, and outlines the next steps that will be taken to bring the project forward to delivery.

Definition of 'Eco Home' for Peterborough

UN figures from 2021 show that 17% of global carbon production is related to existing homes, with a further 10% attributable to the construction of both homes and non-residential development. If we pro rata the latter that suggests about 23% of carbon is attributable to new and existing homes (i.e. nearly a quarter). Carbon arises during construction due to the emissions arising from the construction of building materials, transporting them and installing them on site – this is known as embodied carbon. The use of these components in a home for tasks such as ventilation, heating/cooling, lighting, boiling the kettle are known as operational carbon. The development of new homes therefore needs to consider both aspects alongside educational activity to ensure residents know how to use their home efficiently.

In order to drive forward a transition to lower carbon homes the Government announced the Future Home Standard which has set the objective of achieving a 75-80% reduction in carbon by 2025 compared with the 2015 Building Regulations. As some significant and technically complex changes would be needed to how new homes are built, the Government needed to consult with the industry on how best to achieve this. Therefore, it identified some interim changes in 2021 which were introduced from June 2022. A detailed technical consultation is now awaited with the Government due to publish its response in 2024. The interim 2022 changes seek to tackle the first 31% of carbon reduction with the balance of the original 75-80% goal to be achieved in 2025. Alongside the Future Homes Standard is a parallel Future Buildings Standard which includes some elements of relevance to all building types including homes (e.g. overheating). The changes to Building Regulations from 2022 include:

- Part L – this determines that new build homes must reduce their carbon emissions by 31%, adopting a 'fabric first' approach which requires improved insulation, undertake a pressure test to deliver air tightness, phase out gas boilers and replace them with low carbon air/ground source heat pumps and new heating systems should limit maximum flow temperature to 55°C or lower.
- Amended Part F & new Part O 2022 - the Building Regulations changes are not just about how we heat our homes to live comfortably in the winter, but how we also ensure we live comfortably in what will become warmer summers. Amendments introduce limits to the glazed surface area of a building and in certain high density urban areas also requires shading - the latter is not currently applicable to Peterborough. Trickle vents are required on windows to help deal with ventilation if no other form of ventilation is in place (e.g. mechanical ventilation and heat recovery (MVHR)).
- New Part S 2022 - the new Approved Document S requires new homes to have an EV charge point installed unless the costs exceed an average of £3,600 in which case the preparatory work (internal wiring) should be completed to aid cost-effective future installation of an Electric Vehicle charging point. The practical application on schemes of more than one home may be a mixture of chargers installed on some homes and preparatory work on others.

There is currently a wealth of different 'EcoHomes' standards in the UK that organisations choose to adopt because they want to go beyond the minimum national Building Regulations standards (or higher Planning requirements in some boroughs). The most well-known are:

- Passivhaus
- AECB (the Association of Environmentally Conscious Builders)
- RIBA (the Royal Institute of British Architects)
- LETI (previously the London Energy Transformation Initiative and now renamed the Low Energy Transformation Initiative)

The impact of these standards varies in terms of the volume of carbon that they reduce in comparison to the 2022 Building Regulations and there are a number of case studies that can be explored to understand more about the standards in practice. Officers intend to: evaluate the viability and pros and cons of each of these standards when considering the objectives set for this project; identify if there are areas where the Council could adopt a pioneering approach, for example, looking to further restrict the use of water and support urban drainage; and, explore

long term opportunities to support biodiversity. The extra costs of delivering this over Building Regulations will be added to the Local Plan evidence base to support the Council consider the pros and cons of whether the Local Plan could exceed Building Regulations.

Objectives:

Local Plan - The allocation of funding to the delivery of this project is timely. In January this year the Council decided to embark on the process of drafting a New Local Plan in order to, amongst other things, ensure the Local Plan is aligned to the Council's Corporate Strategy and takes into account critical issues such as climate change and biodiversity net gain. As such, the Eco Homes project provides a unique opportunity to explore the evidence base for the construction of homes that exceed the minimum Building Regulations standards for sustainable homes. This process will ensure that the Council has first-hand experience in determining the viability of various Eco Homes standards, technologies and construction methods in order to determine the minimum standards it could require in the New Local Plan.

Climate Emergency - the Council declared a climate emergency in 2019 and committed to becoming a net zero carbon organisation by 2030. The Council also committed to supporting Peterborough to become a net zero carbon city. To achieve this, all our residents, businesses, organisations, and community groups will need to make changes to reduce emissions. In January 2023 the Council adopted its Local Area Energy Plan (LAEP) and agreed that the findings contained within it provides useful insight to inform the city's decarbonisation plans. Specifically in relation to new build the LAEP found that:

New build dwellings are expected to be designed and constructed to a standard where they are not going to require insulation upgrades before the chosen net zero target; however, there is an opportunity to bring forward the use of low-carbon heating systems for new builds from the current 2025 date, to avoid more expensive retrofit at a later time. This will likely depend on developers selecting low carbon heating rather than achieving this through planning policy.

As such the first proposed objective of this project is to:

1. Provide a practical viability assessment to determine the extent to which the new Local Plan could require developers to exceed national minimum Building Regulations standards, avoiding the need for costly retrofit at a later date.

Housing Need – the Council acknowledges that it has a range of housing needs. Data shows that as of the 1st August 2023 there were 2,622 households on the housing register. In terms of bedroom need this is broken down as follows: 1 bed: 1099, 2 bed: 762, 3 bed: 558, 4 bed: 166, 5 bed: 32, 6 bed: 2, 7 bed: 3.

As such the second proposed objective of this project is to:

2. Determine the most appropriate delivery mechanism (Council delivery, partnership with a Registered Provider etc.) to construct a range of apartments and family homes to ensure that the opportunities to construct Eco Homes for a range of tenure types is understood.

Growth - Peterborough is one of the fastest growing cities in the UK, delivering around 1,000 new homes each year, with a diverse and vibrant economy and one of the highest business start-up rates in the country. The Eco Homes project offers an opportunity to identify the type and scale of products that will be required to enable a transition to more sustainable homes. For example, an increased demand for heat pumps, windows and other equipment could enable Peterborough to become a local, regional and national centre for the manufacture and supply of this equipment and in doing so create a new area of growth in the economy with the associated training and employment opportunities. There is already at least one example of a nationally recognised company, Taylor Wimpey, establishing a timber frame factory in the city. Alongside this the local College and new University could be an integral part of developing similar opportunities.

As such the third proposed objective of this project is to:

3. Identify opportunities to develop and grow the local supply chain with the associated training, apprenticeship and employment opportunities.

Health – the Council acknowledges that sustainable homes must also be healthy homes. Eco homes can be fitted with improved heating, ventilation, and insulation and can therefore, contribute to reducing the risks and symptoms of respiratory diseases, asthma, some cancers, cardiovascular disease, depression, stress and some infectious diseases. The Council is also committed to ensure that these homes are designed to mitigate the impacts of a changing climate and do not overheat in the summer.

As such the fourth proposed objective of this project is to:

4. Demonstrate how sustainable construction can provide the right environment for improved health and wellbeing outcomes of residents.

Affordable living – the current cost of living crisis, the rising cost of utility bills and the proportion of residents in Peterborough that are considered to be living in fuel poverty demonstrates how essential it is that new homes are cost effective to live in and maintain, without the need for significant retrofit at a later date.

As such the fifth proposed objective of this project is to:

5. Demonstrate the viability of developing new homes that are comparatively cost effective to live in and maintain in comparison to a standard property compliant with Building Regulations standards.

Next steps:

In order to deliver this project, the following short term next steps are proposed:

1. Establish an officer working group, including representatives from Property, Planning, Public Health, Finance, Environment and Climate Change and Housing to support the delivery of this project.
2. Finalise the project brief, in line with the objectives outlined above and the local Eco Homes definition and determine a recommended pathway to delivery/construction.
3. Identify and secure a suitable site/s in liaison with colleagues undertaking the Locality Asset Review.
4. Identify opportunities to work with local partners to bring added value to the project. For example, it may be possible to work with the University of Peterborough to undertake short, medium and long term monitoring of the project impact.
5. Explore opportunities to support, develop and grow the number of Eco Home suppliers and manufacturers located in Peterborough.

5. CORPORATE PRIORITIES

- 5.1 **The Economy & Inclusive Growth** - Delivery of the Eco Homes project will have a direct impact on carbon emissions and seek to support the sustainability requirements for homes as part of the Local Plan.

Carbon Impact Assessment - this report contains no proposals for changes to service delivery and therefore there is no decision to take which may impact carbon emissions of the council or the city.

Sustainable Future City Council - delivery of this project provides an opportunity to influence 'how we work', 'how we serve' and 'how we enable' by making sure the requirements for new homes across the city are understood and are as sustainable as possible.

Our Places and Communities – delivery of this project provides an opportunity to influence the design of housing going forward contributing to future improved health outcomes of residents.

6. CONSULTATION

- 6.1 No consultation has been undertaken at this stage of the project. Construction of the Eco Homes will require planning consent and will be subject to the standard associated consultation processes.

7. ANTICIPATED OUTCOMES OR IMPACT

- 7.1 It is anticipated that Councillors provide comment on the approach to the delivery of the Eco Homes project.

8. REASON FOR THE RECOMMENDATION

- 8.1 The Council has committed, as part of the annual budget setting process, to deliver the Eco Homes project. As set out in this report it is intended that this project not only delivers new Eco Homes in the city but also contributes to the development of the new Local Plan.

9. ALTERNATIVE OPTIONS CONSIDERED

- 9.1 The option of not delivering the Eco Homes project has been ruled out. The project offers a timely opportunity, not only to construct new Eco Homes in the city, but to provide a valuable evidence base for the development of the Local Plan.

10. IMPLICATIONS

Financial Implications

- 10.1 There are no new financial implications arising as a result of this project as the £2m is already allocated in the MTFs.

Legal Implications

- 10.2 Given that this report has been prepared with a view to keeping Members fully informed and not for the purpose of seeking any decision which might bind the Council in any financial or other way the report does not have any legal implications.

Equalities Implications

- 10.3 *Summarise here any equalities implications related to this.*

11. BACKGROUND DOCUMENTS

Used to prepare this report, in accordance with the Local Government (Access to Information) Act 1985

- 11.1 Peterborough Local Area Energy Plan (LAEP) -
<https://democracy.peterborough.gov.uk/documents/s48237/6.%20Appendix%201%20Peterborough%20Local%20Area%20Energy%20Plan.pdf> and evidence base -
<https://democracy.peterborough.gov.uk/documents/s48238/6.%20Appendix%202%20Peterborough%20LAEP%20Evidence%20Base.pdf>

12. APPENDICES

- 12.1 None

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