

# Central Lincolnshire Policy S10 Embodied Carbon Evidence Report

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## Contents

1. Introduction.....	3
2. Policy Context.....	3
National Policy and Guidance.....	3
Local Policy .....	3
3. Context and Evidence.....	4
4. Issues and Options Consultation.....	4
5. Proposed Approach in Draft Local Plan .....	5
6. Reasonable Alternative Options.....	5
7. Conclusion .....	5

## 1. Introduction

- 1.1. The Central Lincolnshire Local Plan is being updated since the first Local Plan for Central Lincolnshire, an area covering the districts of City of Lincoln, North Kesteven and West Lindsey, was adopted in April 2017.
- 1.2. This Evidence Report (which is one of a collection) provides background information and justification for Policy S10, which relates to embodied carbon.

## 2. Policy Context

### National Policy and Guidance

- 2.1. Since the Central Lincolnshire Plan was adopted the National Planning Policy Framework (NPPF) was updated in July 2018 with subsequent additional changes being published in February 2019.
- 2.2. The NPPF does not contain any specific policy in relation to embodied carbon. However, Chapter 2 of the NPPF sets out national policy for achieving sustainable development, which separates it out into three objectives – economic, social and environmental. Within the environmental objective, “mitigating and adapting to climate change, including moving to a low carbon economy” forms a key part of achieving sustainable development – a key goal of the planning system.
- 2.3. Paragraph 20 of the NPPF sets out the strategic matters that should be addressed through strategic policies, including “planning measures to address climate change mitigation and adaptation”, while paragraph 14 provides that:

*“The planning system should support the transition to a low carbon future in a changing climate, taking full account of flood risk and coastal change. It should help to: shape places in ways that contribute to radical reductions in greenhouse gas emissions, minimise vulnerability and improve resilience; encourage the reuse of existing resources, including the conversion of existing buildings; and support renewable and low carbon energy and associated infrastructure.”*
- 2.4. The Planning Practice Guidance (PPG) was first introduced in 2014 which offers ‘live’ government guidance. The PPG provides guidance to help in the implementation of policy in the NPPF.
- 2.5. Like the NPPF, at present the NPPG offers no specific guidance in relation to embodied carbon.

### Local Policy

- 2.6. Policy LP18, Climate Change and Low Carbon Living, of the current Local Plan (2017) states that proposals will be considered ‘more favourably’ if the scheme would make a positive and significant contribution to a number of matters, including resource efficiency. Specifically, the policy states that schemes which ‘take opportunities to use sustainable materials in the construction process, avoiding products with high embodied energy content’ will be considered ‘more favourably’.
- 2.7. The current Local Plan (2017) therefore does not contain a specific *requirement* in relation to embodied carbon: rather, it expressly supports proposals which address this matter positively and significantly.

### 3. Context and Evidence

- 3.1. The introduction of policy S10 in the new Local Plan is needed because it presents a real opportunity in terms of reducing resource and energy consumption, and minimising waste and emissions.
- 3.2. A significant proportion of a building's lifetime carbon is locked into the fabric and systems. Embodied carbon means all the carbon dioxide emitted in producing materials so in the case of buildings means all the emissions from the construction of building materials, the construction of the building itself, all the fixtures and fittings inside and finally the deconstruction and disposal at the end of a building's lifetime. Embodied carbon figures have been calculated for different dwelling types across Central Lincolnshire with the average embodied carbon figure of 45 tonnes of CO<sub>2</sub> per dwelling. Addressing the embodied carbon can provide cost-effective potential for carbon savings and cost savings over and above those traditionally targeted through operational savings. Much of the low hanging fruit of embodied carbon abatement is yet to be taken advantage of. It therefore provides a significant opportunity to reduce the carbon impact of the business and increase organisational carbon savings.
- 3.3. Reduction in embodied carbon is not subject to ongoing building user behaviour in the way that operational carbon savings are. As a result, embodied carbon benefits can be more accurate and identifiable than predicted operational carbon reductions, particularly the final occupant of the building is not known at the time.
- 3.4. Embodied carbon savings made during the design and construction stage are also delivered today. This contrasts with operational emissions savings which are delivered over time in the future. Indeed, a Kg of CO<sub>2</sub> saved over the next 5 years has a greater environmental value than a kg saved in say 10 or more years' time.
- 3.5. Embodied carbon assessment can also contribute to other sustainability targets and priorities beside carbon. For example, use of recycled content, recyclability of building materials, and reduced waste materials to landfill can all result from a focus on embodied carbon and also contribute to waste targets. Similarly, benefits to the local community can accrue from reduced on-site energy generation and cleaner fabrication processes which mitigate the impact of the development site on the local area; the use of more local sourcing and local supply chains can also support jobs and the economy in the locale (or if not local, at regional or national level).

### 4. Issues and Options Consultation

- 4.1. The topic of embodied carbon was not specifically consulted on at the Issues and Options Consultation.
- 4.2. However, this policy has been introduced because of the decision taken by the CLJSPC to deliver a Local Plan that makes significant efforts to deliver a net zero carbon Central Lincolnshire and the positive impacts addressing embodied carbon can have, as highlighted in section 3 above.

## 5. Proposed Approach in Draft Local Plan

- 5.1. The proposed policy approach to be taken forward in the Draft Local Plan, is a policy which sets a specific requirement for major development proposals to minimise embodied carbon and a requirement for all other development to take opportunities reduce embodied carbon content.

## 6. Reasonable Alternative Options

- 6.1. The alternative policy options, as explored in the Sustainability Appraisal, are a policy setting specific requirements for minimising embodied carbon for both major and minor development proposals (option 2) or, option 3, have no local policy and instead rely on national policy and guidance as set out in the NPPF and NPPG.
- 6.2. Policy option 2 was discounted because, while it sets specific requirements for both major and minor proposals, compared to the preferred policy approach which sets a specific requirement only for major proposals and a general requirement for all other proposals, the effects are anticipated to be similar, with both the preferred policy and policy option 2 scoring the same in the sustainability appraisal. A lack of specific criteria in relation to minor development will allow applicants' flexibility in how they achieve the policy requirements, and provides balance in terms of what is expected from applicants and developers when considering the Local Plan requirements as a whole.
- 6.3. Policy option 3 was discounted because it was likely to have neutral or negligible effects in relation to all 15 of the Sustainability Appraisal objectives.

## 7. Conclusion

- 7.1. This Evidence Report demonstrates the rationale for the proposed policy as contained in the Draft Central Lincolnshire Local Plan January 2021. This report will be updated following responses received during the Regulation 18 consultation prior to finalising the Local Plan for submission. This helps bring together relevant evidence that has informed this policy and how we have responded to comments received during the plan making process, as well as how the latest evidence and national guidance has been taken into account.