

Milton Keynes City Council

Carbon & Climate Study

Executive Summary

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Executive Summary

The Milton Keynes Carbon and Climate Study has been prepared by Arup on behalf of Milton Keynes City Council (MKCC). It forms an evidence base document to inform planning policies in the MK City Plan 2050. The Plan will be the local plan document for Milton Keynes over the next 26 years.

The Study is underpinned by technical analysis of the current and projected environmental footprint of the MKCC administrative area. To inform this analysis, the Study involved public engagement, where residents' comments were invited to provide feedback on recent observations of extreme weather events and how they would like planning policy to support sustainable development in Milton Keynes. Technical stakeholders and local Councillors were also engaged on key matters including renewable energy, exposure to climate hazards (such as extreme heat, flooding and water scarcity), carbon emissions and green infrastructure.

The Study has been prepared in three reports:

- **Baseline report:** Establishes the MKCC administrative area's current environmental footprint. This includes carbon emissions, air quality and vulnerability to climate hazards (including flooding and extreme heat). It also provides a best practice review of Local Plan policies and a framework for well-designed and sustainable places, guided by Arup's Green and Thriving Places publication.
- **Analysis report:** Evaluates the potential environmental footprint of future growth in three key areas:
 - Where growth could be planned, when considering implications for carbon emissions from buildings and transport, air quality and vulnerability to climate hazards.
 - Where potential capacity for renewable energy generation exists, where areas of natural, landscape and heritage significance are avoided; and
 - Policy options for sustainable design features, taking account of cost estimates for building energy efficiency measures and Electric Vehicle charging points.
- **Recommendations report:** Provides recommendations for planning policy, based on the Baseline and Analysis report findings, for the MKCC administrative area as a whole and Central Milton Keynes.

Bringing together the results of these reports, the following key findings are highlighted:

- Buildings currently represent the greatest share of carbon emissions (45%), followed by transport (28%) in the MKCC administrative area, based on Government data.

As such, the Study has made planning policy recommendations on net zero carbon buildings (accounting for carbon from both the construction and use of buildings) and developer contributions to carbon reduction projects.
- Delivering future growth by increasing building density in Milton Keynes City is projected to result in lower carbon emissions and lesser worsening in air quality from new development, in comparison to three other alternative patterns of growth.

MKCC will determine which pattern and density of growth is appropriate for the MK City Plan 2050, when they consider the other Local Plan evidence documents.
- Of the climate hazards considered, the MKCC administrative area is currently most vulnerable to flooding (including from rivers and surface water) and extreme heat (especially in built-up areas).

As such, the Study has made policy recommendations on sustainable design features, including on Sustainable Drainage Systems, green and blue infrastructure, green roofs and walls, Biodiversity Net Gain and interventions to mitigate overheating and poor air quality in buildings.
- The MKCC administrative area has significant potential capacity to accommodate solar PV panels, as a renewable source of energy generation.

As such, the Study has made policy recommendations on how to deliver ground-mounted solar PV panels at a MKCC administrative area level, and roof-based solar PV where space allows.