





Melfield gardens

Path to net zero carbon

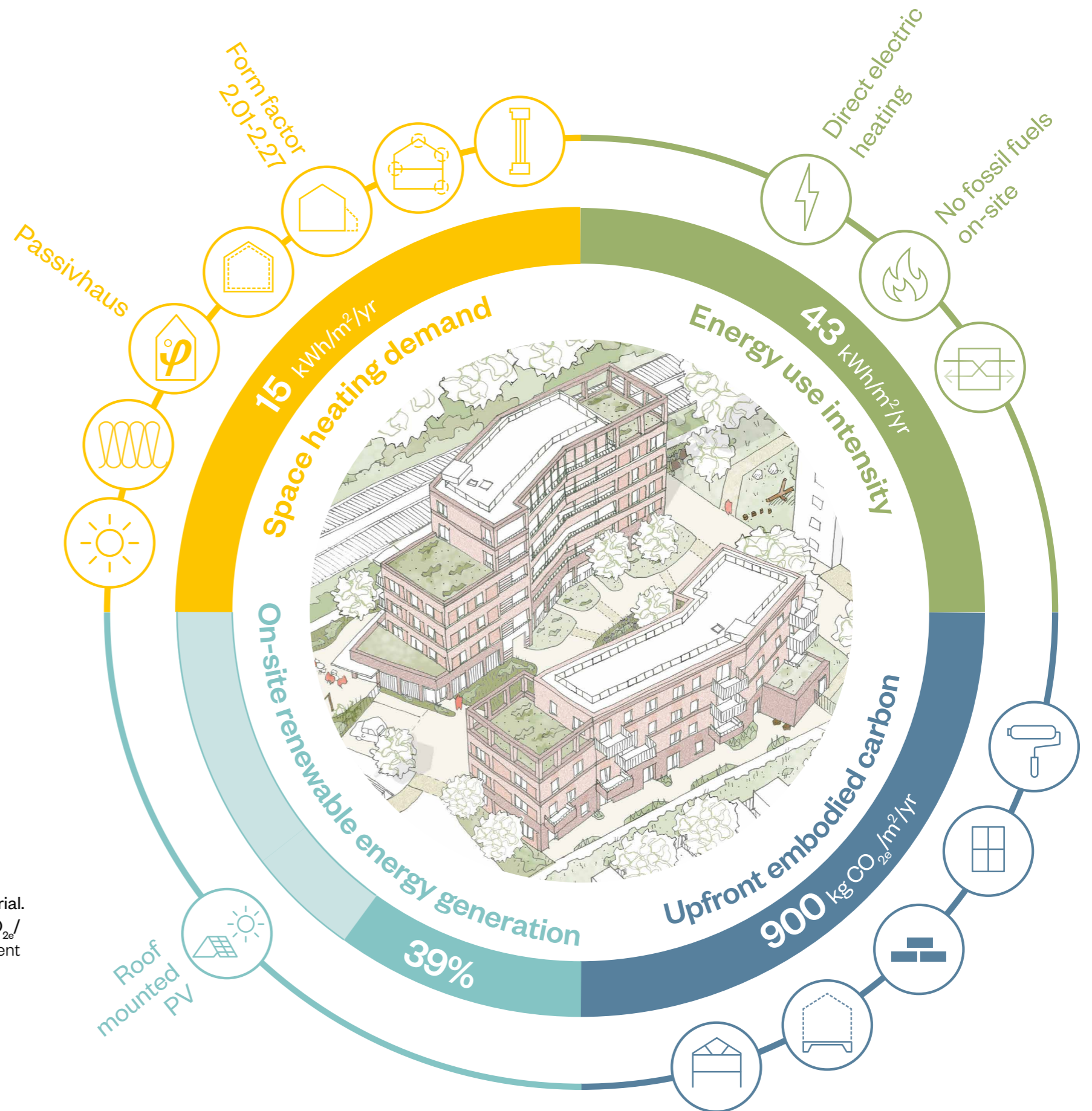
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Performance of the building form and fabric
The space heating demand (SHD) demonstrates the efficiency of the fabric. Melfield Gardens achieves a SHD of 15 kWh/m²/yr. This meets the CCC recommendation of 15-20kWh/m²/yr and significantly less than a standard London Plan compliant home of 50kWh/m²/yr.
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Performance of the building and systems
The energy use intensity (EUI) is the total energy used in the homes per sqm and demonstrates the efficiency of the building and systems combined. Melfield Gardens achieves an EUI of 43kWh/m²/yr this is slightly worse than the LETI and RIBA target of 35kWh/m²/yr. This is significantly less than a standard London Plan compliant home of 90kWh/m²/yr.
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On-site renewable energy generation
Renewable energy generation on-site should ideally be equivalent to the total energy use on-site. At Melfield Gardens 39% of the total energy demand will be met by on-site renewable energy generation. This is significantly higher than a typical London Plan compliant development which achieves approx. 5%.
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Upfront embodied carbon
The consumption of materials and resources contributes the carbon footprint of a development and therefore should be minimised. At Melfield Gardens the design has built-in design measures that aim to reduce the overall consumption of material. On average the scheme is expected to emit around 900 kgCO_{2e}/m² this is similar to a typical London Plan compliant development of 800kgCO_{2e}/m².



Wider sustainability:

- 30%** Reduction in regulated emissions over Part L
- No fossil fuel on-site**
- Water consumption of <105 l/person/day**
- TM59** Overheating risk assessment complete
- 48 secure cycle/buggy store spaces**