

Energy Strategy Addendum A



New Cross Developments
Manchester

RIBA Stage 2

Futureserv Ltd, 10 Oxford Court
Bishopsgate, Manchester. M2 3WQ
Tel: 0161 827 1760
Web: www.futureserv.co.uk

Project: Bendix St, Manchester

Project Ref: P6088

Date: 14th September 2020

Report Ref: 17-02.01

a. Introduction

The following report is intended to be read in conjunction with the energy strategy documents issued previously in connection with the residential development at Bendix St, Manchester (P6088-18-06, New Cross Development, Bendix Street, Manchester - Energy Statement Issue 4).

The development currently has in place an energy strategy that will meet the current MCC policy for Carbon reduction for new residential developments, however given that this policy is currently under review and likely to be improved prior to the completion of this development the decision has been made to incorporate further renewable energy solutions where practical.

Given the residential nature of the development and the current proposals to include CHP within the hot water heating systems the only remaining practical option for renewable energy would be to add PV panels to generate renewable electricity.

b. Proposals for the Development

Bendix Street

Bendix Street: *255 kWh per annum* PV allowance per apartment - this equates to 0.3 kWp per apartment, x 161 apartments = circa 45 kWp system.

Previous Carbon Reduction Result: 21.1% improvement on Part L 2010.

New Result = Circa 25% improvement on Part L 2010.

c. Conclusion

The proposals once implemented will improve the Carbon performance of these developments beyond the current MCC planning targets.

In addition, the reduction in the Carbon Intensity of grid supplied electricity will provide further substantial Carbon savings that are not recognised here.

d. Post Script to Technical Note

These results are all benchmarked against upon the Carbon Intensity of the National Grid as detailed in the Building Regulations Part L 2010 edition which referenced SAP 2012 for its figures.

The Carbon Intensity of the national electricity grid has been reducing for some years and the introduction of large-scale renewables have now lowered this figure substantially, see below;

Part L 2010 Carbon Intensity of Electrical Grid: **0.519** kg/kWh (SAP 2012)

Part L 2020 Carbon Intensity of Electrical Grid: **0.233** kg/kWh (SAP10)

Energy Strategy Addendum A



New Cross Developments
Manchester

RIBA Stage 2

Futureserv Ltd, 10 Oxford Court
Bishopsgate, Manchester. M2 3WQ
Tel: 0161 827 1760
Web: www.futureserv.co.uk

If we interpolate the current published Carbon Intensity figures proposed to come into force later this year (2020) we can see that the real time Carbon emissions when compared with those in 2010 have actually reduced by a very significant amount, see below;

Bendix Street (Including Proposed PV)

Bendix Street using 2010 figures: Target DER: 15.92 kgCO₂/m²/apartment/Annum.

Bendix Street using 2010 figures with PV Proposed DER: 11.94 kgCO₂/m²/apartment/Annum.

Bendix Street using 2020 figures Proposed DER: 8.65 kgCO₂/m²/apartment/Annum.

Previous Carbon Reduction: 21.1% improvement on Part L 2010.

New Result (With PV): 25% improvement on Part L 2010.

Indicative Result (Using 2020 Grid Carbon Intensity) *: 45% improvement on Part L 2010.

* This figure has been interpolated and assumes 50% of the energy consumed is grid supplied electricity.