FUTURA BRIGHT

Department for Work & Pensions

Decarbonisation Study

ISS

Department for Work & Pensions

Decarbonisation Study

Introduction

We were appointed by ISS to undertake a comprehensive decarbonisation study across a portfolio of Jobcentre Plus sites for the Department for Work and Pensions (DWP)

The commission was delivered as a joint venture between Futura Bright and Cooper Homewood Ltd, combining multidisciplinary expertise to support both technical design and energy modelling analysis.

22 sites in the scope

Scope of works

The study covered twenty-two Jobcentre Plus sites located across England and Wales, including London, Cornwall, Birmingham, and regional Welsh locations.

The project required a consistent, data-driven approach to assessing existing building performance and identifying viable pathways to net zero carbon.

FUTURA BRIGHT

Site Assessment & Data Collection

Detailed site surveys were undertaken across the portfolio to establish baseline building performance and identify opportunities for low-carbon upgrades.

This included assessment of existing building services such as lighting systems and controls, heating and cooling plant, terminal units, and ventilation strategies.

Building fabric performance was also reviewed, including window construction types and levels of air tightness. In addition, spatial constraints and plantroom configurations were assessed to determine the feasibility of introducing low-carbon heating technologies at each site.

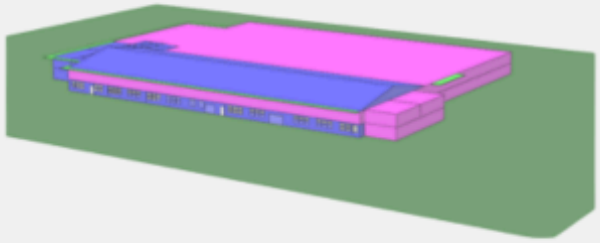
Matterport 3D

To enhance data accuracy and improve design coordination, Matterport 3D scanning technology was deployed during site visits.

High-definition spatial scans were captured at regular intervals throughout each building, generating detailed digital twins of the assets.

These models provided a valuable reference tool throughout the design process, enabling efficient interrogation of MEP plant areas and supporting remote review of existing conditions.

Department for Work & Pensions
Decarbonisation Study



Energy Modelling & Decarbonisation Strategy

The project was delivered across two distinct strands.

Strand A – Low Carbon Heat Feasibility
This strand focused on evaluating the replacement of existing gas-fired heating systems with low-carbon alternatives. Energy models were developed and calibrated in accordance with TM63 methodology using available utility data provided by the client. Where gas heating was present, appropriate low-carbon heating solutions were identified and integrated into the model to assess performance outcomes. The analysis quantified the impact of proposed technologies on operational carbon emissions and energy consumption, alongside associated changes in utility costs.

Strand B – EPC Improvement and Intervention Analysis
The second strand examined the impact of targeted retrofit interventions on Energy Performance Certificate (EPC) ratings across the portfolio. Baseline energy models were calibrated to replicate existing EPC ratings for each site. Individual measures, including lighting upgrades, improved controls, building fabric enhancements, photovoltaic (PV) systems, and air source heat pump (ASHP) installations, were modelled to determine their standalone and combined impact.

An optimised intervention package was then developed for each site, identifying the most effective combination of measures to achieve maximum EPC improvement and carbon reduction potential.

Outcome

The study provided DWP with a clear, evidence-based decarbonisation pathway across a diverse estate, supporting strategic decision-making for future capital investment and long-term net zero planning.

FUTURA BRIGHT

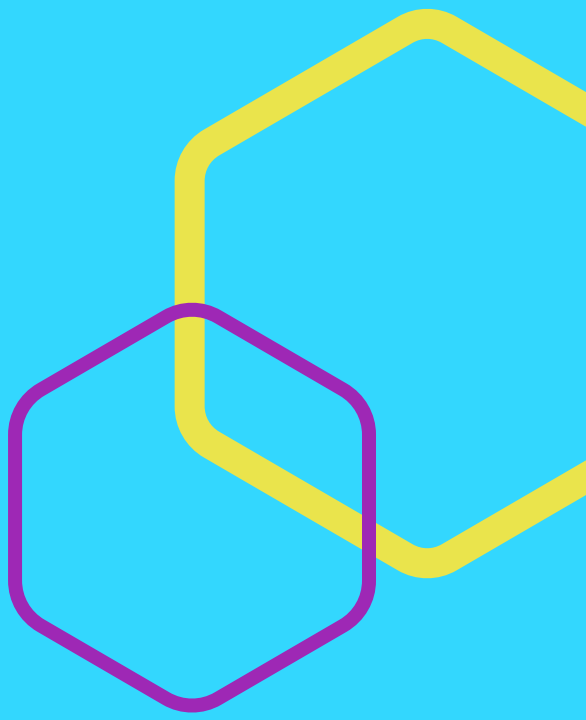
FUTURA BRIGHT

SHAPING A SUSTAINABLE FUTURE

01489 346705

ask@futurabright.co.uk

FuturaBright.co.uk



Futura Bright

Ailsa, 3 Turnberry House

4400 Parkway

Solent Business Park

Whitely, Fareham

PO15 7FJ

United Kingdom