

Michael Dyson
associates ltd

Capability Statement

Domestic Retrofit



Introduction

“Michael Dyson Associates Ltd is committed to working with our clients to meet their carbon reduction targets, whilst considering safety, cost, programme and quality requirements.”

Our multi-disciplinary service provision has been developed to support our clients on their retrofit journey, creating healthier homes and cutting fuel bills for the residents.

Retrofit Standards Framework introduced in 2021 for domestic energy efficiency retrofits, supported by three new PAS specifications:

PAS 2035:2019 The Design Process



PAS 2030:2019 The Installation Process



PAS 2031:2019 The Certification Process

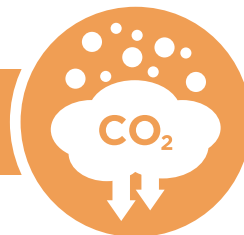


6.5m



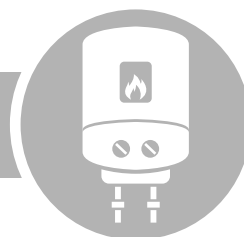
Households in fuel poverty

14%



Greenhouse gas emissions in the UK from domestic energy use

2025



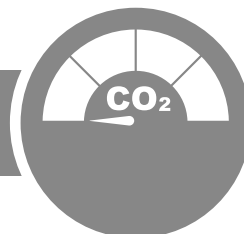
No gas boilers in new homes

2030



All Social Housing to be EPC C or higher

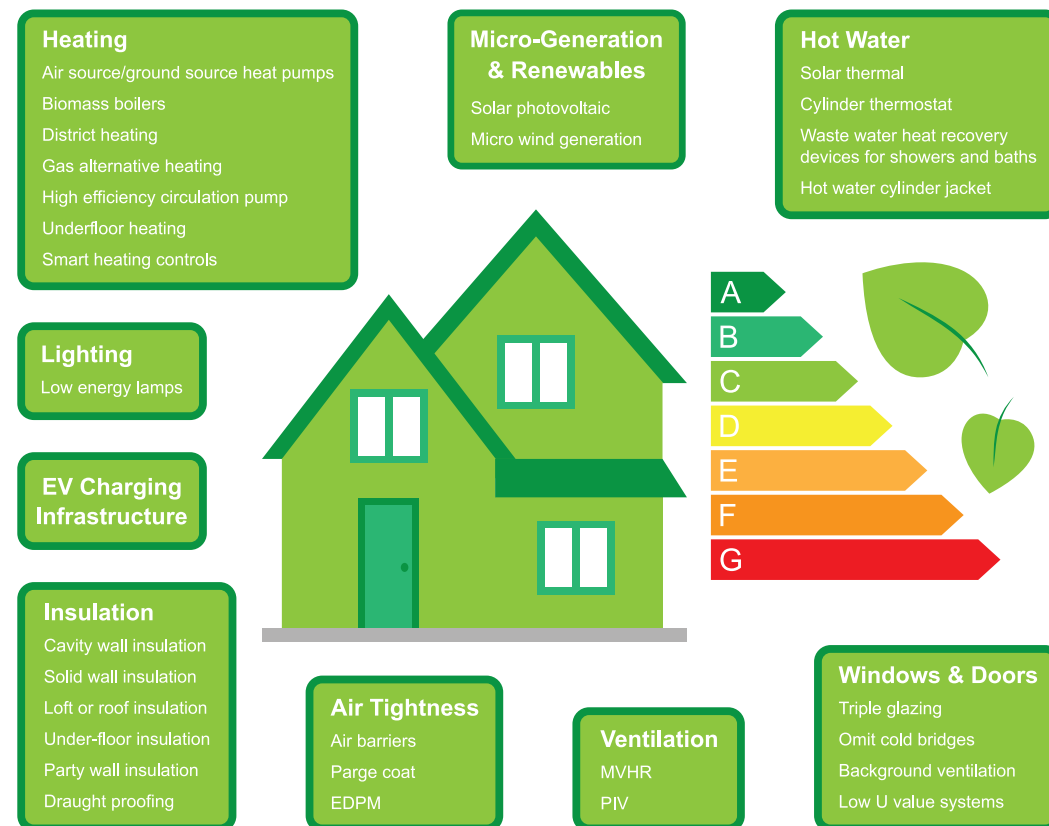
2050



Delivery of net zero carbon targets

Service Provision

Client Awareness/Training
Support with Grant Funding Applications
Energy Surveys including Energy Performance Certificates (EPC) and SAP Assessments
Stock Assessment, Data Analysis and Archetyping
Advice/Identification of Opportunities to Improve EPC/SAP Ratings, Reduce Carbon Emissions & Provide Fuel Bill Savings
Retrofit Designer
Retrofit Assessor
Retrofit Co-ordinator
Retrofit Evaluator
Sustainable/Low Energy Use Design Options
Architecture
Contract Administration
Quantity Surveying
Project Management
Principal Designer
Procurement
Thermal Modelling / Pressure Testing
Measured Surveys
EnerPHit Design
Post Occupancy Evaluations and Monitoring



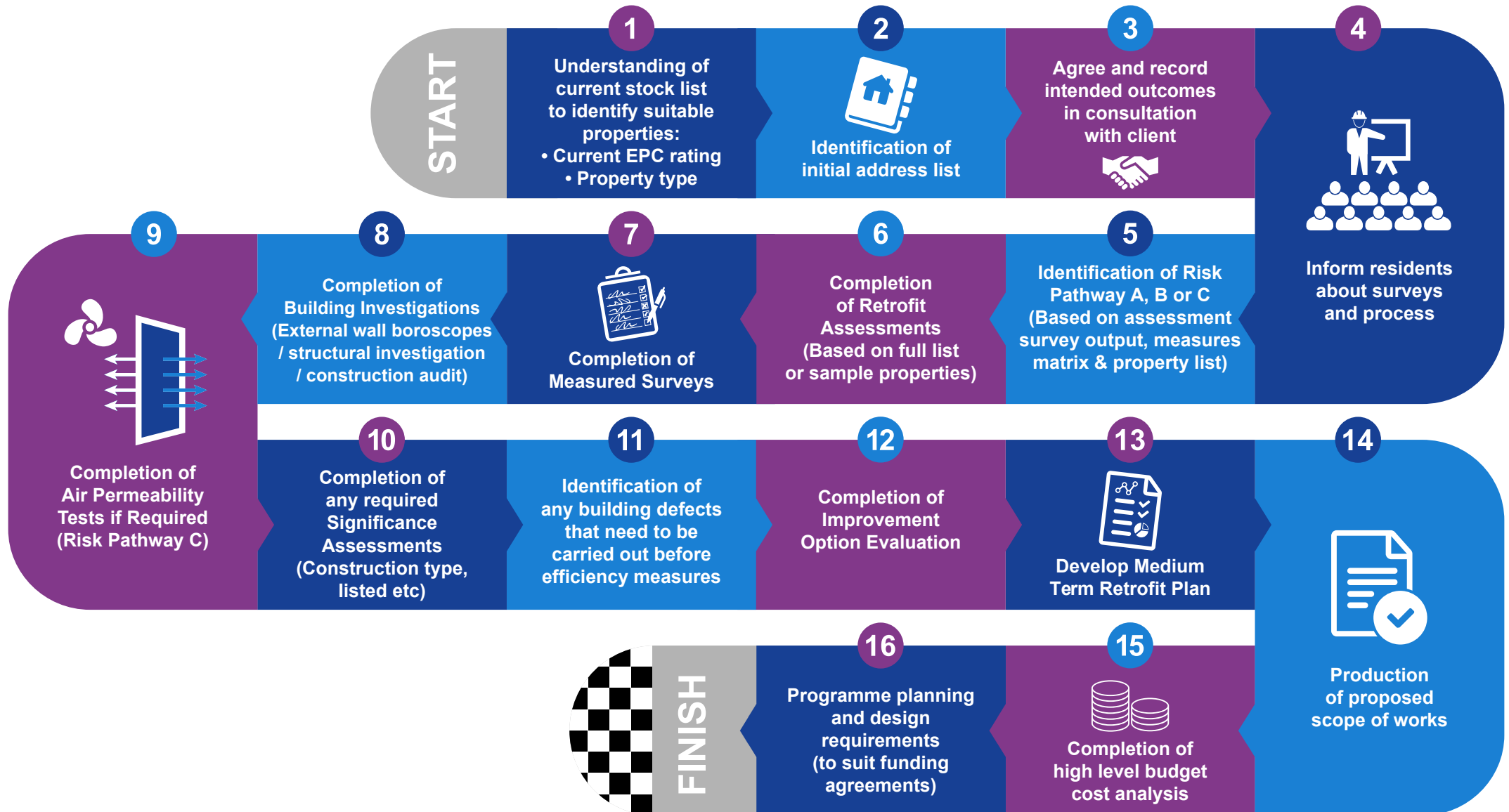
Michael Dyson Associates Ltd is:

- Raising energy efficiency standards in over **2000** existing homes across the UK
- Delivering over **£50m** of energy efficient home improvements for our clients
- Saving households up to **£350** per annum on their energy bills

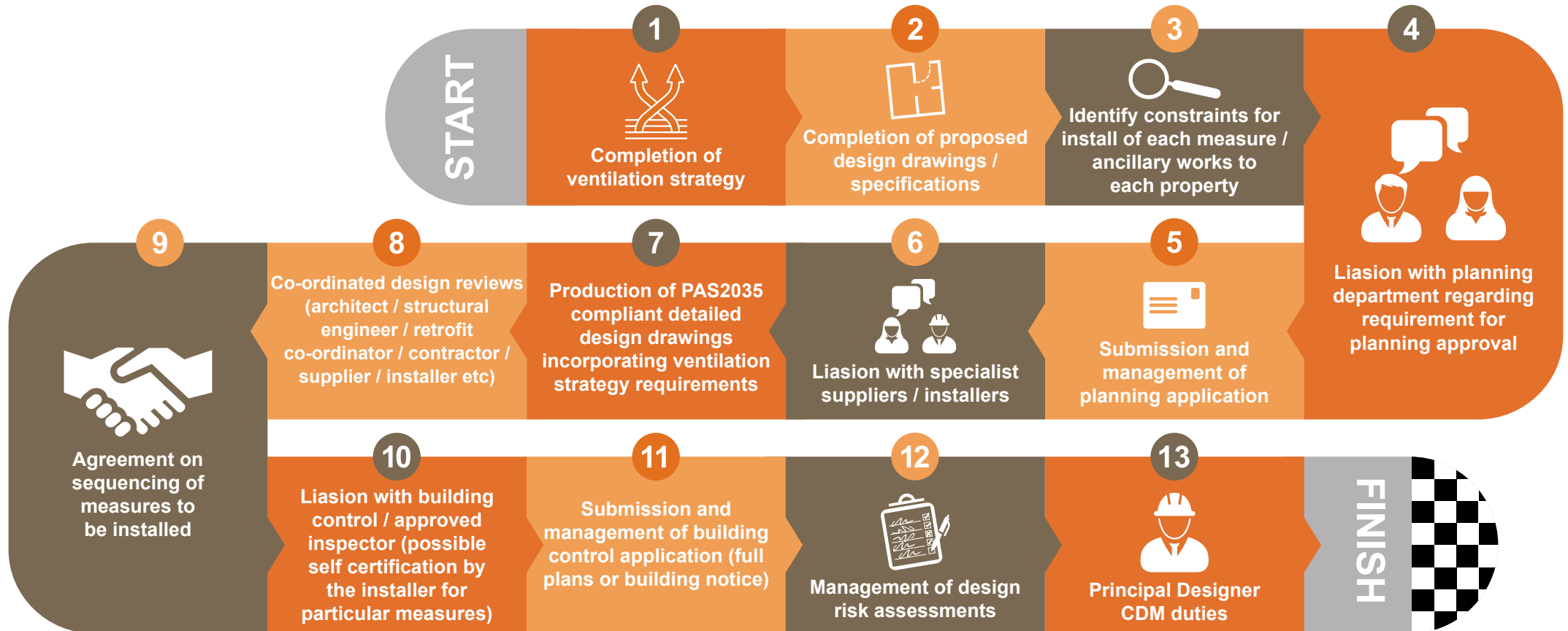


Retrofit Journey

Stage 1 - Analysis / Data Gathering



Stage 2 - Design & Co-ordination



Stage 3 - Delivery



Recent Projects

Dudley Metropolitan Borough Council

Energy Efficiency Retrofit Works to 34 EWI & 130 ELNS Properties

- Green Homes Grant Funding
- Render EWI for 50 properties
- New heating system for 130 properties
- PV's to 75 properties
- New ventilation systems
- PAS 2035 assessor, designer and co-ordinator

Connexus Housing

Energy Efficiency Retrofit Works to 190 Rural Properties

- ERDF Warmer Homes Funding
- Render EWI & brick slips
- New windows, roofs, heating and ventilation systems
- Internal remodeling to move bathrooms
- Use of Passive House Planning Package (PHPP)

Sheffield City Council

Energy Efficiency Retrofit Works for up to 500 Properties

- LAD2 Funding
- Elemental energy efficiency works including loft insulation, cavity fill insulation, new windows, cylinder replacement
- New ventilation systems
- PAS 2035 assessor, designer and co-ordinator

Leeds City Council

Energy Efficiency Retrofit Works to 300 Properties

- SHDF Funding
- Render EWI for 3 high rise blocks
- New windows, roofs and ventilation systems
- PAS 2035 assessor, designer and co-ordinator (Risk Pathway C)

Aspire Housing

Energy Efficiency Retrofit Works for 44 BISF Properties

- SHDF Funding
- Structural remedial works, new external wall with rendered EWI and new windows
- New heating controls and ventilation systems
- PAS 2035 assessor, designer and co-ordinator

Midland Heart

Energy Efficiency Works to 72 Victorian Properties

- SHDF Funding
- IWI to front elevations, EWI to rear and side elevations
- Room in roof insulation / loft insulation
- New ventilation systems

Thurrock Council

Structural Repairs and Energy Efficiency Works to 70 Non-Traditional Properties

- ECO 4 Funding
- Render EWI
- New Windows
- Roof insulation
- New ventilation systems
- Structural repairs

Kirklees Council

Retrofit Pilot Scheme

RIBA Stages of Work 0-7

SERVICES PROVIDED

- Architect/Lead Designer
- Retrofit Designer
- Retrofit Assessor
- Retrofit Co-Ordinator
- Structural Engineering
- Thermographic Surveys



NATURE OF WORK UNDERTAKEN

Michael Dyson Associates Ltd was appointed to design, and support delivery of, an energy retrofit pilot scheme on behalf of Kirklees Council. The purpose of this pilot scheme was to develop a new energy retrofit housing standard, to allow the Council to implement across their full portfolio of properties in the future. The pilot scheme consisted of eight properties, with an EPC rating of E or lower.

DESIGN STANDARDS

As well as developing our designs in accordance with the latest UK Building Regulations, the Council expressed an interest in adopting principles from Passivhaus design standards.

To achieve Passivhaus standards in a retrofit project, a design standard called EnerPhit was developed. This is based upon applying Passivhaus principles to an existing dwelling via a fabric first approach, ensuring the full envelope of the building is airtight and super insulated, to reduce the demand on the heating and cooling systems from the outset.

DESIGN DEVELOPMENT

In order for us to develop design proposals, we first needed to understand the existing properties and consider opportunities and constraints. We commenced with a review of information provided by the Council including:

- Asbestos Survey Reports
- Attributes and Repairs Reports (for each property)
- Cavity Insulation Report (for three properties)

We carried out site measures of the existing properties to understand the size of the internal spaces, location of rainwater pipes, above ground drainage runs, location radiators, load bearing walls etc.

We also carried out Thermographic surveys to better understand the performance of the existing fabric of the dwellings which highlighted large cold spots within the external walls (in particular to the gable ends), and cold junctions between the external walls and roof.

RESIDENT CONSULTATION

MDA provided each resident with a questionnaire designed to allow them to confirm what aspects of the existing properties they felt were most problematic.

During the design stage, we engaged with the residents to allow them to put their own stamp on the design, providing them the opportunity to choose the colour of the feature cladding surround for their house.

CHALLENGES

Due to material shortages and the implications on programme, alternatives were sourced for structural support of the feature canopies and new triple glazed windows. MDA worked closely with the contractor and their procurement team to choose materials that would be in harmony with those already on site, but also control the process of having the materials approved by the planning authority.



FINAL PROPOSAL

A number of design options were considered before presenting the agreed design to the residents for their final comment and input. The retrofit measures that were incorporated within the final design proposals included:

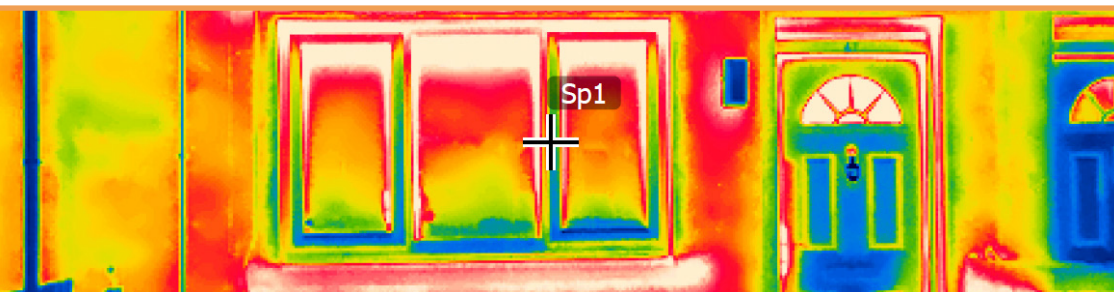
- Existing cavity insulation removed and replaced with new blown insulation.
- New External Wall Insulation with render finish.
- Re-roofing works and increase of roof/loft insulation.
- Triple glazed windows.
- New high performance external front and rear doors.
- Introducing Air Source Heat Pumps for all properties.
- Four properties received PV Panels.
- Four properties received solar thermal.
- Feature cladding.

OUTCOME

Feedback from the Council and residents has been extremely positive. Initial results have shown a reduction in carbon emissions by 50%-75%, saving tenants between £190-£350 a year on their energy bills.

The retrofit scheme has been shortlisted in the Best Social Housing Category at the MJ Awards 2022 where the project has been described as:

“A good holistic approach to retrofit based on scalability and skilling up with the collaboration between residents and a ‘Living Lab’ approach to gather data to inform future projects. This approach was innovative, original and at times challenging. A collaboration of experts, officers and the community which has revitalised an estate. It has afforded the opportunity to upskill officers, create green jobs and delivered strategic objectives around carbon reduction and Fuel Poverty.”





How To Appoint Us

In addition to direct appointment, you can use a number of PCR compliant public sector frameworks to access our services. A selection of our current frameworks are provided here. Please contact us for further information or for a general discussion about how we may be able to assist with your project requirements.



FUSION²¹

PROSPER

 South East Consortium

CHIC 

Procure
PLUS

**LONDON
CONSTRUCTION
PROGRAMME**

 **pfh** | PROCUREMENT FOR HOUSING

PROCUREMENT  **HUB**

Bloom^{*}
*Opening up procurement®
Accredited Supplier

EEM Efficiency East Midlands Ltd 

 **EN** **PROCURE**
EFFICIENCY NORTH
CONSULTANCY FRAMEWORK
WORKING TOGETHER

Contact

Michael Dyson Associates Ltd
West House
Meltham Road
Honley
Huddersfield
West Yorkshire
HD9 6LB

01484 666888

enquiries@mdyson.co.uk

www.mdyson.co.uk