

# BASIC COMPLIANCE REPORT

## Calculation Type: New Build (As Built)

|                                    |                                                                                        |               |                     |                |            |
|------------------------------------|----------------------------------------------------------------------------------------|---------------|---------------------|----------------|------------|
| Property Reference                 | D2052-3                                                                                |               |                     | Issued on Date | 24/02/2022 |
| Assessment Reference               | 3 As built                                                                             | Prop Type Ref | Semi detached house |                |            |
| Property                           | 8 Victory Street, MANCHESTER, M14 5AE                                                  |               |                     |                |            |
|                                    |                                                                                        |               |                     |                |            |
| SAP Rating                         | 77 C                                                                                   | DER           | 25.91               | TER            | 25.99      |
| Environmental                      | 79 C                                                                                   | % DER<TER     | 0.30                |                |            |
| CO <sub>2</sub> Emissions (t/year) | 1.90                                                                                   | DFEE          | 47.75               | TFEE           | 53.21      |
| General Requirements Compliance    | Pass                                                                                   | % DFEE<TFEE   | 10.26               |                |            |
|                                    |                                                                                        |               |                     |                |            |
| Assessor Details                   | Mr. Neil Unsworth, Bridgewater Energy, Tel: 01942 888092, neil@bridgewaterenergy.co.uk |               |                     | Assessor ID    | 5906-0001  |
| Client                             |                                                                                        |               |                     |                |            |

### SUMMARY FOR INPUT DATA FOR New Build (As Built)

#### Criterion 1 – Achieving the TER and TFEE rate

##### 1a TER and DER

|                                             |                    |                                   |      |
|---------------------------------------------|--------------------|-----------------------------------|------|
| Fuel for main heating                       | Electricity        |                                   |      |
| Fuel factor                                 | 1.55 (electricity) |                                   |      |
| Target Carbon Dioxide Emission Rate (TER)   | 25.99              | kgCO <sub>2</sub> /m <sup>2</sup> |      |
| Dwelling Carbon Dioxide Emission Rate (DER) | 25.91              | kgCO <sub>2</sub> /m <sup>2</sup> | Pass |
|                                             | -0.08 (-0.3%)      | kgCO <sub>2</sub> /m <sup>2</sup> |      |

##### 1b TFEE and DFEE

|                                          |               |                        |      |
|------------------------------------------|---------------|------------------------|------|
| Target Fabric Energy Efficiency (TFEE)   | 53.21         | kWh/m <sup>2</sup> /yr |      |
| Dwelling Fabric Energy Efficiency (DFEE) | 47.75         | kWh/m <sup>2</sup> /yr |      |
|                                          | -5.4 (-10.2%) | kWh/m <sup>2</sup> /yr | Pass |

#### Criterion 2 – Limits on design flexibility

##### Limiting Fabric Standards

##### 2 Fabric U-values

| Element       | Average          | Highest          |      |
|---------------|------------------|------------------|------|
| External wall | 0.22 (max. 0.30) | 0.22 (max. 0.70) | Pass |
| Party wall    | 0.00 (max. 0.20) | -                | Pass |
| Floor         | 0.17 (max. 0.25) | 0.17 (max. 0.70) | Pass |
| Roof          | 0.11 (max. 0.20) | 0.11 (max. 0.35) | Pass |
| Openings      | 1.38 (max. 2.00) | 1.40 (max. 3.30) | Pass |

##### 2a Thermal bridging

Thermal bridging calculated from linear thermal transmittances for each junction

##### 3 Air permeability

|                                |                                  |      |
|--------------------------------|----------------------------------|------|
| Air permeability at 50 pascals | 7.55 (average for dwelling type) |      |
| Maximum                        | 10.0                             | Pass |

##### Limiting System Efficiencies

##### 4 Heating efficiency

|                          |                                                                                          |  |
|--------------------------|------------------------------------------------------------------------------------------|--|
| Main heating system      | Room heaters with radiators or underfloor - Electric Panel, convactor or radiant heaters |  |
| Secondary heating system | None                                                                                     |  |

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### 5 Cylinder insulation

Hot water storage

Measured cylinder loss: 1.68 kWh/day  
Permitted by DBSCG 2.02

Pass

Primary pipework insulated

No primary pipework

### 6 Controls

Space heating controls

Programmer and appliance thermostats

Pass

Hot water controls

Cylinderstat

Pass

### 7 Low energy lights

Percentage of fixed lights with low-energy fittings

100

%

Minimum

75

%

Pass

### 8 Mechanical ventilation

Not applicable

## Criterion 3 – Limiting the effects of heat gains in summer

### 9 Summertime temperature

Overheating risk (West Pennines (England))

Slight

Pass

Based on:

Overshading

Average

Windows facing North

3.99 m<sup>2</sup>, No overhang

Windows facing East

4.55 m<sup>2</sup>, No overhang

Windows facing West

8.06 m<sup>2</sup>, No overhang

Air change rate

4.00 ach

Blinds/curtains

None

## Criterion 4 – Building performance consistent with DER and DFEE rate

### Party Walls

Type

U-value

Filled Cavity with Edge Sealing

0.00

W/m<sup>2</sup>K

Pass

### Air permeability and pressure testing

#### 3 Air permeability

Air permeability at 50 pascals

7.55 (average for dwelling type)

Maximum

10.0

Pass

### 10 Key features

Party wall U-value

0.00

W/m<sup>2</sup>K

Roof U-value

0.11

W/m<sup>2</sup>K

Photovoltaic array

2.16

kW

*This report has not been submitted through the Elmhurst Energy members' portal, therefore results are subject to change when the dwelling is completed.*