

# Predicted Energy Assessment



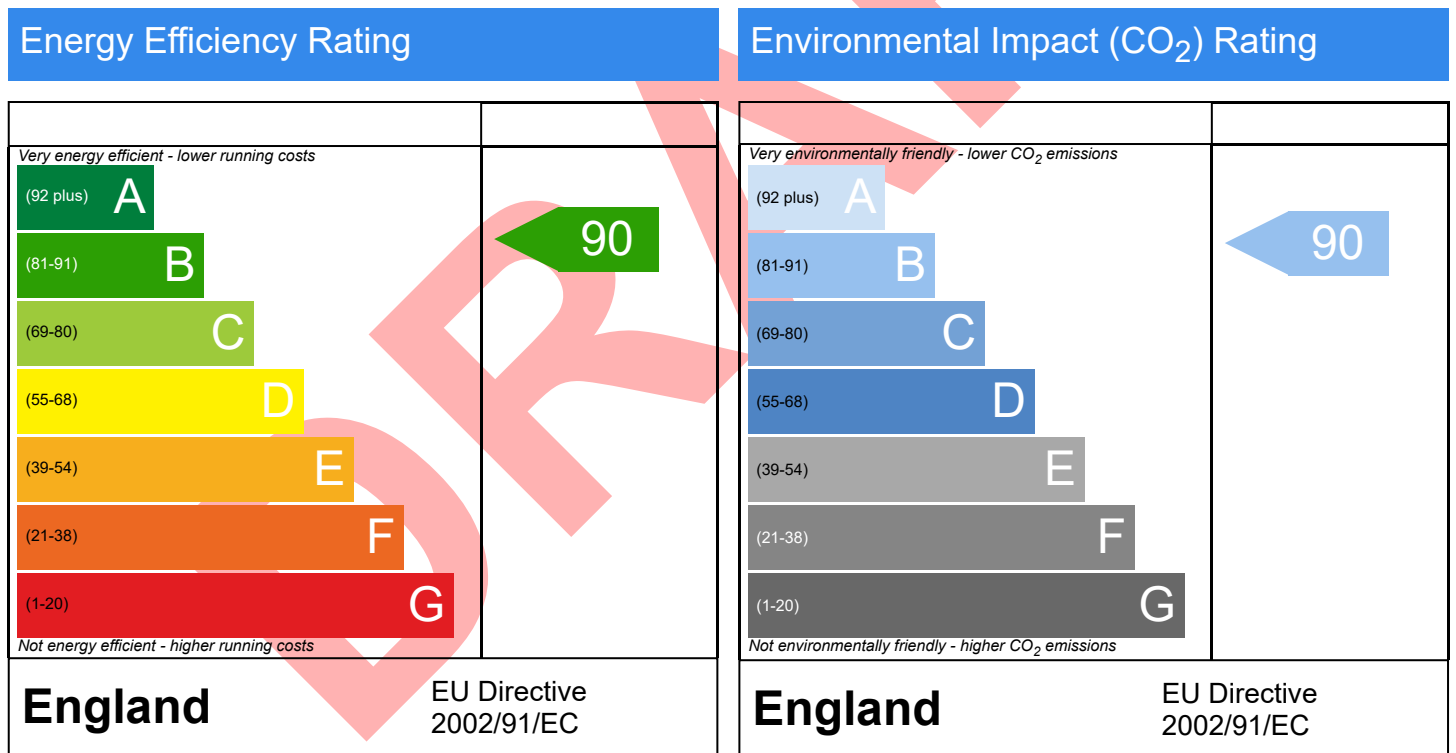
182-184, Bitterne Rd W, Southampton, Hampshire,  
SO18 1BH

Dwelling type:  
Date of assessment:  
Produced by:  
Total floor area:  
DRRN:

Flat, Detached  
04/04/2024  
Kieran Mckerr  
44.31 m<sup>2</sup>

This document is a Predicted Energy Assessment for properties marketed when they are incomplete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, this rating will be updated and an official Energy Performance Certificate will be created for the property. This will include more detailed information about the energy performance of the completed property.

The energy performance has been assessed using the Government approved SAP 10 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO<sub>2</sub>) emissions.



The energy efficiency rating is a measure of the overall efficiency of a home. The higher the rating the more energy efficient the home is and the lower the fuel bills are likely to be.

The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO<sub>2</sub>) emissions. The higher the rating the less impact it has on the environment.

# Summary for Input Data



Property Reference	2759		Issued on Date	04/04/2024	
Assessment Reference	(Gas Boiler) Flat 5 Update	Prop Type Ref			
Property	182-184, Bitterne Rd W, Southampton, Hampshire, SO18 1BH				
SAP Rating	90 B	DER	16.07	TER	17.43
Environmental	90 B	% DER < TER			7.80
CO <sub>2</sub> Emissions (t/year)	0.56	DFEE	34.14	TFEE	45.65
Compliance Check	See BREL	% DFEE < TFEE			25.21
% DPER < TPER	10.97	DPER	82.94	TPER	93.16
Assessor Details	Mr. Kieran Mckerr			Assessor ID	BA75-0001
Client	0001, Andrew Jones				

## SUMMARY FOR INPUT DATA FOR: New Build (As Designed)

Orientation	East
Property Tenure	2
Transaction Type	6
Terrain Type	Suburban
1.0 Property Type	Flat, Detached
Position of Flat	Top-floor flat
Which Floor	1
2.0 Number of Storeys	1
3.0 Date Built	2023
4.0 Sheltered Sides	2
5.0 Sunlight/Shade	Average or unknown
6.0 Thermal Mass Parameter	Precise calculation
7.0 Electricity Tariff	7 Hour Off Peak
Smart electricity meter fitted	No
Smart gas meter fitted	No

7.0 Measurements	Ground floor:	Heat Loss Perimeter 28.00 m	Internal Floor Area 44.31 m <sup>2</sup>	Average Storey Height 2.30 m
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8.0 Living Area	16.44	m <sup>2</sup>
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9.0 External Walls										
Description	Type	Construction	U-Value (W/m <sup>2</sup> K)	Kappa (kJ/m <sup>2</sup> K)	Gross Area(m <sup>2</sup> )	Nett Area (m <sup>2</sup> )	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall	Solid Wall	Solid wall : dense plaster, 210 mm brick, insulated externally	0.14	135.00	45.19	35.08	0.00	None	10.11	Enter Gross Area
Corridor Wall	Solid Wall	Solid wall : dense plaster, 210 mm brick, insulated externally	0.14	135.00	19.21	17.11	1.00	None	2.10	Enter Gross Area

9.2 Internal Walls				
Description	Construction	Kappa (kJ/m <sup>2</sup> K)	Area (m <sup>2</sup> )	
Party Wall	Dense block, plasterboard on dabs	75.00	47.75	

10.0 External Roofs										
Description	Type	Construction	U-Value (W/m <sup>2</sup> K)	Kappa (kJ/m <sup>2</sup> K)	Gross Area(m <sup>2</sup> )	Nett Area (m <sup>2</sup> )	Shelter Code	Shelter Factor	Calculation Type	Openings
External Roof 1	External Flat Roof	Other	0.14	30.00	44.31	44.31	None	0.00	Enter Nett Area	0.00

11.1 Party Floors					
Description	Storey Index	Construction	Kappa (kJ/m <sup>2</sup> K)	Area (m <sup>2</sup> )	
Party Floor 1	Lowest occupied	Precast concrete planks floor, screed, carpeted	30.00	42.42	

12.0 Opening Types										
Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m <sup>2</sup> K)	
Corridor Door	Manufacturer	Door to Corridor							1.00	

# Summary for Input Data



External Glazing      Manufacturer      Window      Triple Low-E Soft 0.05      0.34      0.83      0.80

## 13.0 Openings

Name	Opening Type	Location	Orientation	Area (m <sup>2</sup> )	Pitch
Corridor Door	Corridor Door	Corridor Wall	East	2.10	
North Windows	External Glazing	External Wall	North	3.31	
North West Windows	External Glazing	External Wall	North West	3.40	
West Windows	External Glazing	External Wall	West	3.40	

## 14.0 Conservatory

None

## 15.0 Draught Proofing

100 %

## 16.0 Draught Lobby

No

## 17.0 Thermal Bridging

User Input

## 17.1 List of Bridges

Bridge Type	Source Type	Length	Psi	Adjusted Reference:	Imported
E2 Other lintels (including other steel lintels)		1.00			No
E2 Other lintels (including other steel lintels)		5.35			No
E3 Sill		5.35			No
E3 Sill		1.00			No
E4 Jamb		8.40			No
E4 Jamb		4.20			No
E20 Exposed floor (normal)		21.85			No
E7 Party floor between dwellings (in blocks of flats)		21.85			No
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)		5.23			No

Y-value      0.04      W/m<sup>2</sup>K

Description      Thermohouse

## 18.0 Pressure Testing

Yes

Designed AP<sub>50</sub>      3.00      m<sup>2</sup>/(h.m<sup>2</sup>) @ 50 Pa

Test Method      Blower Door

## 19.0 Mechanical Ventilation

### Mechanical Ventilation

Mechanical Ventilation System Present      Yes

Mechanical Ventilation data Type      Data Sheet

Type      Balanced mechanical ventilation with heat recovery

MVHR Duct Insulated      Insulated Ducts

Manufacturer SFP      0.54

Duct Type      Rigid

MVHR Efficiency      0.90

Wet Rooms      1

Brand, Model      Flakt Group

SFP from Installer Commissioning Certificate      No

MVHR System Location      Outside heated envelope (not installed exclusively)

## 20.0 Fans, Open Fireplaces, Flues

## 21.0 Fixed Cooling System

No

## 22.0 Lighting

No Fixed Lighting      No

Name	Efficacy	Power	Capacity	Count
Lighting 1	120.00	100	12000	1

## 24.0 Main Heating 1

Database

Percentage of Heat      100.00 %

Database Ref. No.      18648

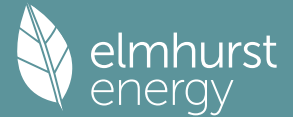
Fuel Type      Mains gas

In Winter      84.10

In Summer      98.90

Model Name      IC Economiser 27 Plus

# Summary for Input Data



Manufacturer	ATAG Verwarming Nederland
System Type	Combi boiler
Controls SAP Code	2103
Delayed Start Stat	No
Flue Type	Balanced
Fan Assisted Flue	Yes
Is MHS Pumped	Pump in heated space
Heating Pump Age	2013 or later
Heat Emitter	Underfloor
Underfloor Heating	Yes - Pipes in thin screed
Flow Temperature	Enter value
Flow Temperature Value	55.00
Boiler Interlock	No
Combi boiler type	Standard Combi
Combi keep hot type	None

**25.0 Main Heating 2**

**26.0 Heat Networks**

**Space Community Heating**

	Heat Source	Fuel Type	Heating Use	Efficiency	Percentage Of Heat	Heat	Heat Power Ratio	Electrical	Fuel Factor	Efficiency type
Heat source 1										
Heat source 2										
Heat source 3										
Heat source 4										
Heat source 5										

**28.0 Water Heating**

Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	Yes
Waste Water Heat Recovery Instantaneous System 1	No
Waste Water Heat Recovery Instantaneous System 2	No
Waste Water Heat Recovery Storage System	No
Solar Panel	No
Water use <= 125 litres/person/day	Yes
Cold Water Source	From header tank
Bath Count	0

**28.1 Showers**

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
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**28.2 Flue Gas Heat Recovery System**

Database ID	0
Brand Model	
Details	

**28.3 Waste Water Heat Recovery System**

**29.0 Hot Water Cylinder**

In Airing Cupboard

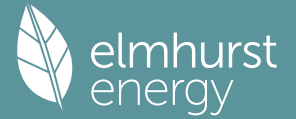
**32.0 Photovoltaic Unit**

Export Capable Meter?

Connected To Dwelling

Diverter

# Summary for Input Data



Battery Capacity [kWh]

2.75

PV Cells kWp	Orientation	Elevation	Overshading	FGHRS	MCS Certificate	Overshading Factor	MCS Certificate Reference	Panel Manufacturer
1.01	South	Horizontal	None Or Little		No	1.00		
0.18	South	Horizontal	None Or Little		No	1.00		

## 34.0 Small-scale Hydro

None

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec

## Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

Typical Cost

Typical savings per year

Ratings after improvement  
SAP rating 0 Environmental Impact 0

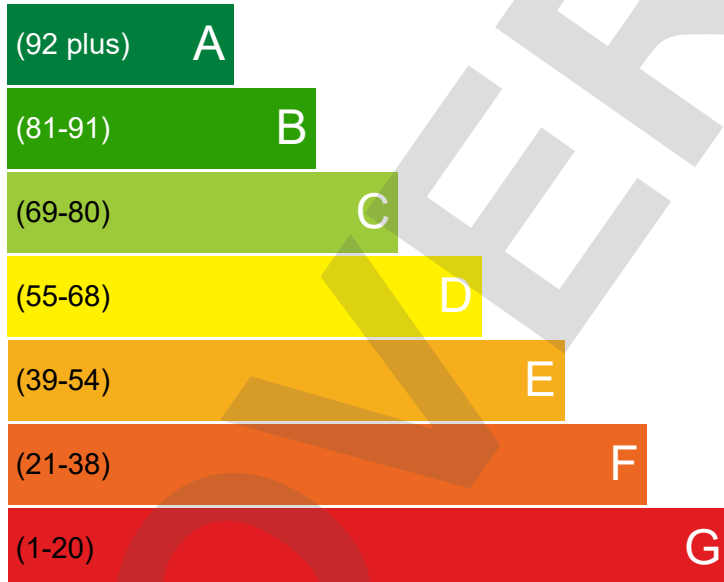
Dwelling Address	182-184, Bitterne Rd W, Southampton, Hampshire, SO18 1BH
Report Date	04/04/2024
Property Type	Flat, Detached
Floor Area [m <sup>2</sup> ]	44

This document is not an Energy Performance Certificate (EPC) as required by the Energy Performance of Buildings Regulations

## Energy Rating

The current energy rating represents the overall energy efficiency of the dwelling. The potential energy rating is the overall energy rating of the dwelling after all of the recommend measures provided on the next page have been installed. A higher score represents a more energy efficient dwelling with lower fuel bills.

Most energy efficient - lower running costs



CURRENT

90

POTENTIAL

90

Least energy efficient - higher running costs

## Breakdown of property's energy performance

Each feature is assessed as one of the following:



Feature	Description	Energy Performance
Walls	Average thermal transmittance 0.13 W/m <sup>2</sup> K	Very Good
Roof	Average thermal transmittance 0.14 W/m <sup>2</sup> K	Very Good
Windows	High performance glazing	Very Good
Main heating	Boiler and underfloor heating, mains gas	Good
Main heating controls	Room thermostat only	Poor
Secondary heating	None	
Hot water	From main system	Very Good
Lighting	Excelent lighting efficiency	Very Good
Air tightness	Air permeability [AP50] = 3.0 m <sup>3</sup> /h.m <sup>2</sup> (assumed)	Good

## Primary Energy use

The primary energy use for this property per year is 64 kilowatt hour (kWh) per square metre

## Estimated CO<sub>2</sub> emissions of the dwelling

The estimated CO rating provides an indication of the dwelling's impact on the environment in terms of carbon dioxide emissions; the higher the rating the less impact it has on the environment.

The estimated CO emissions for this dwellings is:	<b>0.6</b>	per year
With the recommended measures the potential CO emissions could be:	<b>1</b>	per year

## Recommendations

The recommended measures provided below will help to improve the energy efficiency of the dwelling. To reach the dwelling's potential energy rating all of the recommended measures shown below would need to be installed. Having these measures installed individually or in any other order may give a different result when compared with the cumulative potential rating.

Recommended measure	Typical Yearly Saving	Potential Rating after measure installed	Cumulative savings (per year)	Cumulative Potential Rating
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## Estimated energy use and potential savings

Estimated energy cost for this property over a year

**£174**

Over a year you could save

**£0**

The estimated cost and savings show how much the average household would spend in this property for heating, lighting and hot water. It is not based on how energy is used by the people living at the property.

## Contacting the assessor and the accreditation scheme

Assessor contact details	
Assessor name	Mr. Kieran Mckerr
Assessor's accreditation number	
Email Address	



## Accreditation scheme contact details

Accreditation scheme	
Telephone	
Email Address	

## Assessment details

Related party disclosure	
Date of assessment	04/04/2024
Date of certificate	04/04/2024
Type of assessment	SAP, new dwelling

OVERVIEW