#### PREDICTED ENERGY ASSESSMENT



Plot 088, 2 Bed, Dwelling type: Flat, Semi-Detached

K, B Date of assessment: 10/10/2019

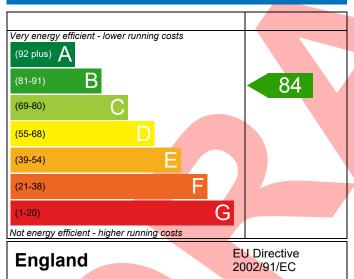
Produced by: Mitchell Bennellick

Total floor area: 70.26 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.

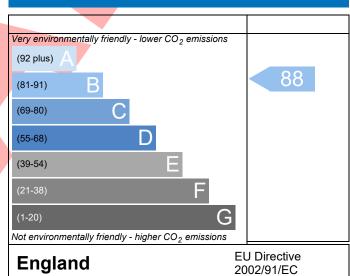
The energy performance has been assessed using the Government approved SAP2012 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO<sub>2</sub>) emissions.

#### **Energy Efficiency Rating**



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.

### **Environmental Impact (CO<sub>2</sub>) Rating**



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.

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# **BUILDING REGULATION COMPLIANCE Calculation Type: New Build (As Designed)**



Property Reference 4907-0012-4615	-088			10/10/201		
Assessment 088 Reference		Prop Type Ref	2BF - GFF - Semi			
Property Plot 088, 2 Bed,	К, В					
SAP Rating	84 B DER	17.29	TER	19.34		
Environmental		R <ter< td=""><td>10.60</td><td>13.31</td></ter<>	10.60	13.31		
CO₂ Emissions (t/year)	1.00 DFEE		TFEE	52.93		
General Requirements Compliance		EE <tfee< td=""><td>15.65</td><td></td></tfee<>	15.65			
Assessor Details Ms. Eloise Utley, Elo	ise Utley , Tel: 01884 242050,	eloise.utley@aessc.co.	uk Assessor ID	P635-000		
Client						
UMARY FOR INPUT DATA FOR New Buil	d (As Designed)					
riterion 1 – Achieving the TER and TFEE	rate					
a TER and DER						
Fuel for main heating	Mains gas			7		
Fuel factor	1.00 (mains gas			Ī		
Target Carbon Dioxide Emission Rate	TER) 19.34		kgCO <sub>2</sub> /m²			
Dwelling Carbon Dioxide Emission Rat	e (DER) 17.29		kgCO <sub>2</sub> /m <sup>2</sup>	Pass		
	-2.05 (-10.6%)		kgCO <sub>2</sub> /m <sup>2</sup>			
<u>b TFEE and DFEE</u>						
Target Fabric Energy Efficiency (TFEE)	52.93		kWh/m²/yr			
Dwelling Fabric Energy Efficiency (DFE			kWh/m²/yr			
	-8.3 (-15.7%)		kWh/m²/yr	Pass		
riterion 2 – Limits on design flexibility						
Limiting Fabric Standards						
2 Fabric U-values						
Element	Average	Highest				
External wall	0.21 (max. 0.30)	0.24 (max. 0.7	0)	Pass		
Party wall	0.00 (max. 0.20)					
Floor	0.13 (max. 0.25)	0.13 (max. 0.7		Pass		
Openings	1.48 (max. 2.00)	8 (max. 2.00) 1.88 (max. 3.30)				
2a Thermal bridging						
Thermal bridging calculated from I	inear thermal transmittances	for each junction				
			1			
3 Air permeability		( \	m³/(h.m²) @ 50 Pa			
Air permeability  Air permeability at 50 pascals  Maximum	4.50 (design val	lue)	m³/(h.m²) @ 50 Pa			

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Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.11r11

# **BUILDING REGULATION COMPLIANCE Calculation Type: New Build (As Designed)**



Main heating system	Boiler system with radiators or underfloor - Mains gas	Pass
	Data from database	
	Ideal LOGIC COMBI ESP1 35	
	Combi boiler	
	Efficiency: 89.6% SEDBUK2009 Minimum: 88.0%	
Secondary heating system	None	
5 Cylinder insulation		
Hot water storage	No cylinder	
_	No cylinder	
6 Controls		
Space heating controls	Programmer, room thermostat and TRVs	Pass
Hot water controls	No cylinder	
Boiler interlock	Yes	Pass
7 Low energy lights		
Percentage of fixed lights with low-energy	100 %	
fittings Minimum	75	Dana
	75 %	Pass
8 Mechanical ventilation		
Continuous extract system (decentralised)		_
Specific fan power	0.1600 0.1600	
Maximum	0.7	Pass
Criterion 3 – Limiting the effects of heat gains in sum	mer	
Criterion 3 – Limiting the effects of heat gains in sum  9 Summertime temperature		_
9 Summertime temperature Overheating risk (South East England)	mer Slight	Pass
9 Summertime temperature		Pass
9 Summertime temperature Overheating risk (South East England)	Slìght	Pass
9 Summertime temperature Overheating risk (South East England) Based on: Overshading Windows facing South East	Slight  Average  3.02 m², No overhang	Pass
9 Summertime temperature Overheating risk (South East England) Based on: Overshading Windows facing South East Windows facing South West	Average  3.02 m², No overhang 2.20 m², No overhang	Pass
9 Summertime temperature Overheating risk (South East England) Based on: Overshading Windows facing South East Windows facing South West Windows facing North West	Slight  Average  3.02 m², No overhang 2.20 m², No overhang 5.27 m², No overhang	Pass
9 Summertime temperature Overheating risk (South East England) Based on: Overshading Windows facing South East Windows facing South West Windows facing North West Air change rate	Slight  Average  3.02 m², No overhang 2.20 m², No overhang 5.27 m², No overhang 5.00 ach	Pass
9 Summertime temperature Overheating risk (South East England) Based on: Overshading Windows facing South East Windows facing South West Windows facing North West Air change rate Blinds/curtains	Slight  Average  3.02 m², No overhang 2.20 m², No overhang 5.27 m², No overhang 5.00 ach  None	Pass
9 Summertime temperature Overheating risk (South East England) Based on: Overshading Windows facing South East Windows facing South West Windows facing North West Air change rate Blinds/curtains Criterion 4 – Building performance consistent with D	Slight  Average  3.02 m², No overhang 2.20 m², No overhang 5.27 m², No overhang 5.00 ach  None	Pass
9 Summertime temperature Overheating risk (South East England) Based on: Overshading Windows facing South East Windows facing South West Windows facing North West Air change rate Blinds/curtains Criterion 4 – Building performance consistent with D Party Walls	Slight  Average  3.02 m², No overhang 2.20 m², No overhang 5.27 m², No overhang  3.00 ach  None  ER and DFEE rate	Pass
9 Summertime temperature Overheating risk (South East England) Based on: Overshading Windows facing South East Windows facing South West Windows facing North West Air change rate Blinds/curtains Criterion 4 – Building performance consistent with D Party Walls Type	Slight  Average  3.02 m², No overhang 2.20 m², No overhang 5.27 m², No overhang  3.00 ach  None  ER and DFEE rate  U-value	
9 Summertime temperature Overheating risk (South East England) Based on: Overshading Windows facing South East Windows facing South West Windows facing North West Air change rate Blinds/curtains Criterion 4 – Building performance consistent with D  Party Walls Type Filled Cavity with Edge Sealing	Slight  Average  3.02 m², No overhang 2.20 m², No overhang 5.27 m², No overhang  3.00 ach  None  ER and DFEE rate	Pass
9 Summertime temperature  Overheating risk (South East England)  Based on:  Overshading  Windows facing South East  Windows facing South West  Windows facing North West  Air change rate  Blinds/curtains  Criterion 4 – Building performance consistent with D  Party Walls  Type  Filled Cavity with Edge Sealing  Air permeability and pressure testing	Slight  Average  3.02 m², No overhang 2.20 m², No overhang 5.27 m², No overhang  3.00 ach  None  ER and DFEE rate  U-value	
9 Summertime temperature Overheating risk (South East England) Based on: Overshading Windows facing South East Windows facing South West Windows facing North West Air change rate Blinds/curtains Criterion 4 – Building performance consistent with D Party Walls Type Filled Cavity with Edge Sealing Air permeability and pressure testing 3 Air permeability	Slight  Average  3.02 m², No overhang 2.20 m², No overhang 5.27 m², No overhang  3.00 ach  None  ER and DFEE rate  U-value  0.00 W/m²K	
9 Summertime temperature  Overheating risk (South East England)  Based on:  Overshading  Windows facing South East  Windows facing South West  Windows facing North West  Air change rate  Blinds/curtains  Criterion 4 – Building performance consistent with D  Party Walls  Type  Filled Cavity with Edge Sealing  Air permeability and pressure testing	Slight  Average  3.02 m², No overhang 2.20 m², No overhang 5.27 m², No overhang  3.00 ach  None  ER and DFEE rate  U-value  0.00 W/m²K  4.50 (design value) m³/(h.m²) @ 50 Pa	
9 Summertime temperature Overheating risk (South East England) Based on: Overshading Windows facing South East Windows facing South West Windows facing North West Air change rate Blinds/curtains Criterion 4 – Building performance consistent with D Party Walls Type Filled Cavity with Edge Sealing Air permeability and pressure testing 3 Air permeability	Slight  Average  3.02 m², No overhang 2.20 m², No overhang 5.27 m², No overhang  3.00 ach  None  ER and DFEE rate  U-value  0.00 W/m²K	
9 Summertime temperature  Overheating risk (South East England)  Based on:  Overshading  Windows facing South East  Windows facing South West  Windows facing North West  Air change rate  Blinds/curtains  Criterion 4 – Building performance consistent with D  Party Walls  Type  Filled Cavity with Edge Sealing  Air permeability and pressure testing  3 Air permeability  Air permeability at 50 pascals	Slight  Average  3.02 m², No overhang 2.20 m², No overhang 5.27 m², No overhang  3.00 ach  None  ER and DFEE rate  U-value  0.00 W/m²K  4.50 (design value) m³/(h.m²) @ 50 Pa	Pass
9 Summertime temperature  Overheating risk (South East England)  Based on:  Overshading  Windows facing South East  Windows facing South West  Windows facing North West  Air change rate  Blinds/curtains  Criterion 4 – Building performance consistent with D  Party Walls  Type  Filled Cavity with Edge Sealing  Air permeability and pressure testing  3 Air permeability  Air permeability at 50 pascals  Maximum	Slight  Average  3.02 m², No overhang 2.20 m², No overhang 5.27 m², No overhang  3.00 ach  None  ER and DFEE rate  U-value  0.00 W/m²K  4.50 (design value) m³/(h.m²) @ 50 Pa	Pass

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## **RECOMMENDATIONS**



	Typical cost	Typical savings per year	Energy efficiency	Environmental impact	Result
Low energy lights			0	0	Already installed
Solar water heating			0	0	Not applicable
Photovoltaic			0	0	Not applicable
Wind turbine			0	0	Not applicable
Totals	£0	£0	B 84	B 88	



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