PREDICTED ENERGY ASSESSMENT



Masonry, Plot 72, 2 Bed, Dwelling type: Flat, Detached K, B Date of assessment: 06/08/2021

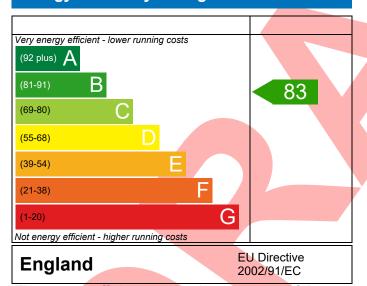
Produced by: Mitchell Bennellick

Total floor area: 60.82 m²

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.

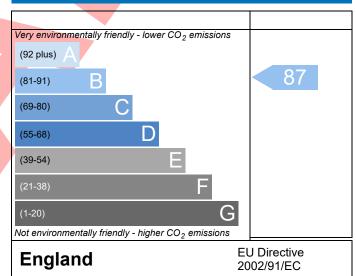
The energy performance has been assessed using the Government approved SAP2012 methodology and is rated in terms of the energy use per square meter of floor area; the energy efficiency is based on fuel costs and the environmental impact is based on carbon dioxide (CO₂) emissions.

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 (CO₂) Rating



The environmental impact rating is a measure of a home's impact on the environment in terms of carbon dioxide (CO₂) emissions. The higher the rating the less impact it has on the environment.

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



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



Assessment Reference	Property Reference	e 4907-0012-5606-072				Issued on Date	06/08/2021			
SAP Rating										
SAP Rating		Masanny Dlat 72, 2.5	lad K D							
State		iviasonry, Plot 72, 2 E								
Cotemissions (t/year) General Requirements Compliance Pass Mr. Silvio Junges, Silvio Junges, Tel: 01884 242050, silvio Junges, Tel: 01884 242050, silvio Junges, silvio Junges, Tel: 0188					18.58		20.34			
Assessor Details Mr. Silvio Junges, Silvio Junges, Tel: 01884 242050,										
Assessor Details Mr. Silvio Junges, Silvio Junges, Tel: 01884 242050, silvio.junges@aessouthern.co.uk P635-0001 SUMARY FOR INPUT DATA FOR New Build (As Designed) Criterion 1 – Achieving the TER and TFEE rate 1a TER and DER Fuel for main heating Main's gas Fuel factor 1.00 (mains gas). Pass Target Carbon Dioxide Emission Rate (DER) 18.58 kgCO ₂ /m² Pass Dwelling Carbon Dioxide Emission Rate (DER) 18.58 kgCO ₂ /m² Pass Target Fabric Energy Efficiency (TFEE) 47.93 kWh/m²/yr Dwelling Fabric Energy Efficiency (DFEE) 47.93 kWh/m²/yr Pass Criterion 2 – Limits on design flexibility Limiting Fabric Standards 2 Element Average Highest External wall 0.22 (max. 0.30) 0.25 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass Qpenings 1.22 (max. 2.00) 1.30 (max. 3.30) Pass 2a Thermal bridging Calculated from linear thermal transmittances for each junction 3 Air permeability Air permeability 3 SO Pascals 5.01 (design value) m²/(h.m²) @ 50 Pa Maximum 10.0 m²/(h.m²) @ 50 Pa Pass Limiting System Efficiencies					47.93		55.66			
Silvio,junges@aessouthern.co.uk SUMARY FOR INPUT DATA FOR New Build (As Designed) Criterion 1 - Achieving the TER and TFEE rate 1a TER and DER Fuel for main heating Fuel factor Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) 1a.58 kgCO2/m² Pass kgCO2/m² 1a.76 (-8.7%) kgCO2/m² Pass kgCO2/m² 1b.TFEE and DFEE Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DFEE) 47.93 kWh/m²/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) 0.25 (max. 0.70) Pass Pa	General Requirem	ents Compliance	Pass	% DFEE <ifee< td=""><td></td><td>13.88</td><td></td></ifee<>		13.88				
Criterion 1 – Achieving the TER and TFEE rate 1a TER and DER Fuel for main heating Fuel factor Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DFEE) Target Fabric Energy Efficiency (DFEE) Target Fabric Standards 2 Fabric U-values Element External wall D.22 (max. 0.30) Openings 1.22 (max. 0.20) 1.30 (max. 0.35) Openings Thermal bridging Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability Limiting System Efficiencies 5.01 (design value) Maximum 10.0 m³/(h.m²) @ 50 Pa Pass Pass Limiting System Efficiencies	Assessor Details	_	_	242050,		Assessor ID	P635-0001			
SUMARY FOR INPUT DATA FOR New Build (As Designed) Criterion 1 – Achieving the TER and TFEE rate 1a TER and DER Fuel for main heating Fuel factor Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) 18.58 kgC02/m² Pass Pass Pass Pass Pass Pass Pass Pas	Clicat	silvio.junges@aessouthern.co.uk								
Triterion 1 - Achieving the TER and TFEE rate 1a TER and DER Fuel for main heating Fuel factor Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) 1a.58 1-1.76 (-8.7%) 1b.55.66 1c.793 1c.793 1c.793 1c.793 1c.793 1c.794 1c.793 1c.79										
Target Carbon Dioxide Emission Rate (TER) Fuel factor Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DFEE) Target Fabric Energy Efficiency (DFEE) Target Fabric Energy Efficiency (DFEE) Dwelling Fabric Standards Criterion 2 – Limits on design flexibility Limiting Fabric Standards 2 Fabric U-values Element Average Element Average Element Average Element Average Fighting System Efficiency 1.22 (max. 0.30) 1.22 (max. 0.30) 1.20 (max. 0.35) Pass 2 Thermal bridging Thermal bridging Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability Air permeability Air permeability Air permeability at SO pascals Maximum 10.0 m³/(h.m²) @ 50 Pa Pass Pass Limiting System Efficiencies		•	s Designed)							
Fuel for main heating Fuel factor Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) 18.58 -1.76 (-8.7%) 1b TFEE and DFEE Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DFEE) 1-7,8 (-14.0%) 1-7,8 (-14	Criterion 1 – Achiev	ving the TER and TFEE rate								
Fuel factor Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) 18.58 1.76 (-8.7%) 18.58 1.76 (-8.7%) 18.58 1.76 (-8.7%) 18.58 1.76 (-8.7%) 18.58 1.76 (-8.7%) 18.58 1.76 (-8.7%) 18.58 1.76 (-8.7%) 18.58 1.76 (-8.7%) 18.58 1.76 (-8.7%) 18.58 1.76 (-8.7%) 18.58 1.76 (-8.7%) 18.58 19.50 (-8.7%) 19.50 (-8.7%) 10.50 (-8.7%)	1a TER and DER									
Target Carbon Dioxide Emission Rate (TER) Dwelling Carbon Dioxide Emission Rate (DER) 18.58 -1.76 (-8.7%) kgCO2/m² Pass kgCO2/m² kgCO2/m² kgCO2/m² kgCO2/m² kgCO2/m² kgCO2/m² kgCO2/m² kgCO2/m² kgCO2/m² kgCO2/m² kg	Fuel for main heating Mains gas									
Dwelling Carbon Dioxide Emission Rate (DER) 18.58	Fuel factor 1.00 (mains gas)									
-1.76 (-8.7%) kgCO ₂ /m² 1b TFEE and DFEE Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DFEE) 7.8 (-14.0%) kWh/m²/yr kWh/m²/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) 0.25 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass Openings 1.22 (max. 2.00) 1.30 (max. 3.30) Pass 2a Thermal bridging Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability Air permeability at 50 pascals Maximum 10.0 m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies	Target Carbon D	ioxide Emission Rate (TER)	20.34	20.34 kgCO2/m2						
Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DFEE) 47.93 kWh/m²/yr kWh/m²/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) 0.25 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass Openings 1.22 (max. 2.00) 1.30 (max. 3.30) Pass 2a Thermal bridging Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability Air permeability at 50 pascals Maximum 10.0 m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies	Dwelling Carbon	ER) 18.58	18.58 kgCO ₂ /m ²							
Target Fabric Energy Efficiency (DFEE) Dwelling Fabric Energy Efficiency (DFEE) 47.93 kWh/m²/yr kWh/m²/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) 0.25 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass Openings 1.22 (max. 2.00) 1.30 (max. 3.30) Pass 2 Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability Air permeability at 50 pascals Maximum 10.0 m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies			-1.76 (-8	3.7%)		kgCO ₂ /m ²				
Dwelling Fabric Energy Efficiency (DFEE) 47.93 kWh/m²/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) 0.25 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Openings 1.22 (max. 2.00) 1.30 (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 Maximum 10.0 m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies										
Criterion 2 – Limits on design flexibility Limiting Fabric Standards 2 Fabric U-values Element Average Highest External wall 0.22 (max. 0.30) 0.25 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass Openings 1.22 (max. 2.00) 1.30 (max. 3.30) Pass 2 Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability Air permeability at 50 pascals Maximum 5.01 (design value) m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies	_									
Criterion 2 – Limits on design flexibility Limiting Fabric Standards 2 Fabric U-values Element Average Highest External wall 0.22 (max. 0.30) 0.25 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass Openings 1.22 (max. 2.00) 1.30 (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 5.01 (design value) m³/(h.m²) @ 50 Pa Maximum 10.0 m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies	Dwelling Fabric	Energy Efficiency (DFEE)		1,00()						
Limiting Fabric Standards 2 Fabric U-values Element Average Highest External wall 0.22 (max. 0.30) 0.25 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass Openings 1.22 (max. 2.00) 1.30 (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 5.01 (design value) m³/(h.m²) @ 50 Pa Maximum 10.0 m³/(h.m²) @ 50 Pa Limiting System Efficiencies			[-7.8 (-12	1.0%)		kWh/m²/yi	Pass			
Element Average Highest External wall 0.22 (max. 0.30) 0.25 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass Openings 1.22 (max. 2.00) 1.30 (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 Maximum 5.01 (design value) m³/(h.m²) @ 50 Pa m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies				_						
Element Average Highest External wall 0.22 (max. 0.30) 0.25 (max. 0.70) Pass Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass Openings 1.22 (max. 2.00) 1.30 (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 5.01 (design value) m³/(h.m²) @ 50 Pa Maximum 10.0 m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies	-									
External wall Roof Roof O.13 (max. 0.20) O.13 (max. 0.35) Pass Openings 1.22 (max. 2.00) 1.30 (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 Maximum D.25 (max. 0.70) O.13 (max. 0.35) Pass Pass Limiting System Efficiencies	2 Fabric U-value	25								
Roof 0.13 (max. 0.20) 0.13 (max. 0.35) Pass Openings 1.22 (max. 2.00) 1.30 (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 Maximum 5.01 (design value) m³/(h.m²) @ 50 Pa Maximum 10.0 m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies		Element Average Highest								
Openings 1.22 (max. 2.00) 1.30 (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 Maximum 10.0 m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies										
Thermal bridging Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability Air permeability at 50 pascals Maximum 5.01 (design value) 10.0 m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies										
Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability Air permeability at 50 pascals 5.01 (design value) Maximum 10.0 m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies										
Air permeability Air permeability at 50 pascals Maximum 5.01 (design value) 10.0 m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies										
Air permeability at 50 pascals Maximum 5.01 (design value) m³/(h.m²) @ 50 Pa m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies			thermal transmit	tances for each jur	nction					
Maximum 10.0 m³/(h.m²) @ 50 Pa Pass Limiting System Efficiencies										
Limiting System Efficiencies		ility at 50 pascals								
			10.0			m³/(h.m²) @ 50 P	'a Pass			
4 Heating efficiency	Limiting System	Efficiencies								
	4 Heating efficie	ency								

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



Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.14r16

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	None	_]
	No ordinalos	
Hot water storage	No cylinder	
<u>6 Controls</u>		
Space heating controls	Time and temperature zone control	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 %	Pass
8 Mechanical ventilation		
Not applicable		
Criterion 3 – Limiting the effects of heat gains in sur	mmer	
9 Summertime temperature		
Overheating risk (South East England)	Slight	Pass
Based on:		
Overshading	Average	
Windows facing South East	2.76 m², No overhang	
Windows facing South West	8.01 m ² , No overhang	
Air change rate	4.00 ach	
Blinds/curtains	None	
Criterion 4 – Building performance consistent with	DER and DFEE rate	
Air permeability and pressure testing		
3 Air permeability		
Air permeability at 50 pascals	5.01 (design value) m ³ /(h.m ²) @ 50 Pa	
Maximum	10.0 m ³ /(h.m ²) @ 50 Pa	Pass
10 Key features		
Door U-value	0.80 W/m²K	
The state of the s		

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

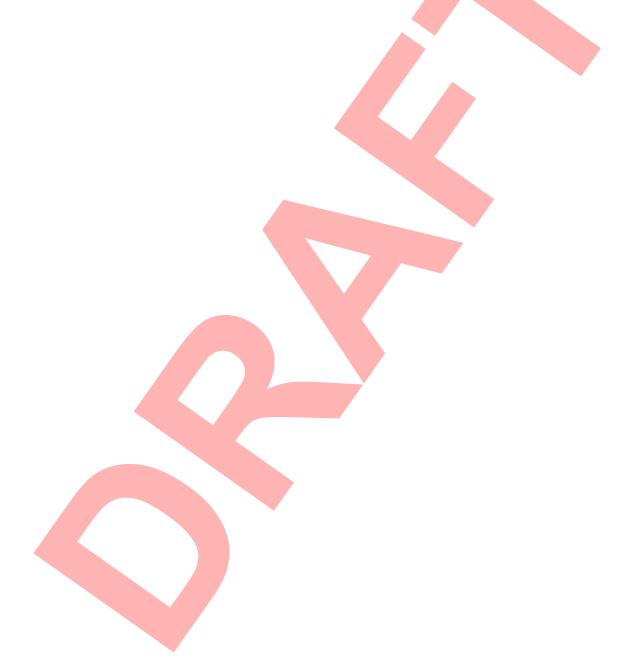


Regs Region: England Elmhurst Energy Systems SAP2012 Calculator (Design System) version 4.14r16

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 83	B 87	



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

