#### PREDICTED ENERGY ASSESSMENT

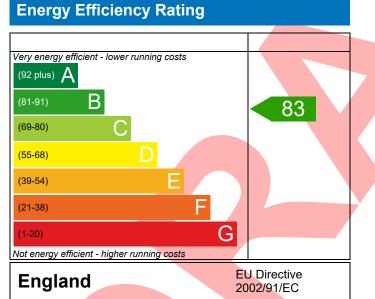


Plot 188, 2 Bed, K, WC, B Dwelling type: Date of assessment: Produced by: Total floor area:

House, Semi-Detached 24/10/2022 Henry Knight 60.34 m<sup>2</sup>

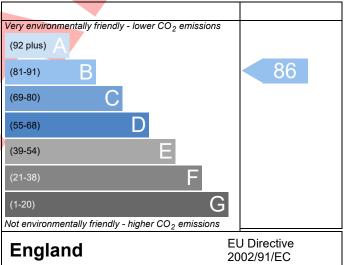
This document is a Predicted Energy Assessment for properties marketed when they are incomplete. It includes a predicted energy rating which might not represent the final energy rating of the property on completion. Once the property is completed, this rating will be updated and an official Energy Performance 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  $(CO_2)$  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.

#### 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  $(CO_2)$  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)



Reference         Property       Plot 188, 2 Bed, K, WC, B         SAP Rating       83 B       DER       19.73       TER       19.86         Environmental       86 B       % DER       0.66       0.66         CO2 Emissions (t/year)       0.99       DFEE       47.92       TFEE       52.54         General Requirements Compliance       Pass       % DFEE       8.79	Property Reference		-188			Dron Tuno Def	Issued on Date	24/10/2022		
Property         Plot 188, 2 Bed, K, WC, B           SAP Rating         83 B         DER         19,73         TER         19.86           Environmental         86 B         % DERCTER         0.66         0.66           CO2 Emissions (L/year)         0.99         DFEE         47.92         TFEE         52.54           General Requirements Compliance         Pass         % DERCTFEE         8.79           Assessor Details         Mr. Henry Knight, Henry Knight, Tel: 01173183565,         Assessor ID         U528-000:           Henry, knight@aessc.co.uk         VISTRY Homes         UMARY FOR INPUT DATA FOR New Build (As Designed)         Triterion 1 – Achieving the TER and TFEE rate         a         TER and DER         Image: Color Pass         KgCO2/m <sup>2</sup> Pass           Fuel for main heating         Mains gas         19.73         kgCO2/m <sup>2</sup> Pass         Pass         Pass         Pass         KgCO2/m <sup>2</sup> Pass         Pass         Pass         kgCO2/m <sup>2</sup> Pass         Pass<	Assessment Reference	188	188 Prop Type Ref Harcourt Semi (Op)							
Environmental           86 B         % DER         0.66           C02 Emissions (L/year)         0.99         DFEE         47.92         TFEE         52.54           General Requirements Compliance         Pass         % DFEE         8.79         Assessor ID         U528-000:           Henry, Knight, Henry Knight, Tel: 01173183565,         Assessor ID         U528-000:         Henry, Knight, Henry Knight, Tel: 01173183565,         Assessor ID         U528-000:           Client         VISTRY Homes         VISTRY Homes         UMARY FOR INPUT DATA FOR New Build (As Designed)         Image: Carbon Dioxide Emission Rate (TER)         10.0 (mains gas)         Image: Carbon Dioxide Emission Rate (TER)         Image: Carbon Dioxide Emission Rate (DER)		Plot 188, 2 Bed, H	K, WC, B							
CO2 Emissions (L/year)       0.99       DFEE       47.92       TEEE       52.54         General Requirements Compliance       Pass       % DFEE       8.79         Assessor Details       Mr. Henry Knight, Henry Knight, Tel: 01173183565, Henry, Knight@aessc.co.uk       Assessor ID       U528-0002         UMARY FOR INPUT DATA FOR New Build (As Designed)       Utstart       Utstart       Utstart       Utstart         Vietroin 1 – Achieving the TER and TFEE rate       a       TER and DER       KgC02/m²       Pass         Fuel for main heating       1.00 (mains gas)       KgC02/m²       Pass         Target Carbon Dioxide Emission Rate (TER)       19.86       kgC02/m²       Pass         b TEEE and DER       0.13 (-0.7%)       kgC02/m²       Pass         b TEEE and DERE       0.13 (-0.7%)       kgC02/m²       Pass         Target Fabric Energy Efficiency (TFEE)       52.54       kWh/m²/yr       Pass         vietrion 2 – Limits on design flexibility       Using Fabric Standards       Using Fabric Standards       2         2 Fabric U-values       Highest       Element       Average       Highest         Element       Average       Highest       Pass       Pass         Floor       0.18 (max. 0.25)       0.18 (max. 0.70)       Pass	SAP Rating			83 B	DER	19.73	TER	19.86		
General Requirements Compliance       Pass       % DFEE       8.79         Assessor Details       Mr. Henry Knight, Henry Knight, Tel: 01173183565,       Assessor ID       U528-000:         Henry, Knight@aessc.co.uk       VISTRY Homes       VISTRY Homes       VISTRY Homes         UMARY FOR INPUT DATA FOR New Build (As Designed)       Triterion 1 – Achieving the TER and TFEE rate       a TER and DER       Fuel for main heating       Mains gas         Fuel for main heating       Mains gas       kgCO <sub>2</sub> /m <sup>2</sup> Pass       kgCO <sub>2</sub> /m <sup>2</sup> Pass         Devel for main heating       1.00 (mains gas)       kgCO <sub>2</sub> /m <sup>2</sup> Pass       kgCO <sub>2</sub> /m <sup>2</sup> Pass         Fuel for main heating       1.00 (mains gas)       kgCO <sub>2</sub> /m <sup>2</sup> Pass       kgCO <sub>2</sub> /m <sup>2</sup> Pass         Develling Carbon Dioxide Emission Rate (DER)       19.73       kgCO <sub>2</sub> /m <sup>2</sup> Pass       kgCO <sub>2</sub> /m <sup>2</sup> Pass         b TFEE and DFEE       52.54       kWh/m <sup>2</sup> /yr       Pass       kWh/m <sup>2</sup> /yr       Pass         Target Fabric Energy Efficiency (TFEE)       52.54       kWh/m <sup>2</sup> /yr       Pass       Pass         Element       Average       Highest       Element       9.25 (max. 0.70)       Pass         Roof       0.17 (max. 0.20)       0.17 (max. 0.35)       0.48 (max. 0.70)	Environmental			86 B	% DER <ter< td=""><td></td><td>0.66</td><td></td></ter<>		0.66			
Assessor Details Mr. Henry Knight, Tel: 01173183565, Henry, knight@aessc.co.uk VISTRY Homes UMARY FOR INPUT DATA FOR New Build (As Designed) iriterion 1 - Achieving the TER and TFEE rate a TER and DER Fuel for main heating Mains gas Fuel factor 1.00 (mains gas) Target Carbon Dioxide Emission Rate (TER) 19.86 kgCO <sub>2</sub> /m <sup>2</sup> Dwelling Carbon Dioxide Emission Rate (DER) 19.73 kgCO <sub>2</sub> /m <sup>2</sup> Dwelling Carbon Dioxide Emission Rate (DER) 19.73 kgCO <sub>2</sub> /m <sup>2</sup> Dwelling Fabric Energy Efficiency (TFEE) 52.54 kWh/m <sup>2</sup> /yr Dwelling Fabric Energy Efficiency (DFEE) 47.92 kWh/m <sup>2</sup> /yr Af (6.48.8%) kWh/m <sup>2</sup> /yr Pass Criterion 2 - Limits on design flexibility Limiting Fabric Standards 2 Fabric U-values Element Average Highest Element 0.25 (max. 0.30) 0.25 (max. 0.70) Pass Roof 0.17 (max. 0.20) - Pass Openings 1.31 (max. 0.25) 0.18 (max. 0.70) Pass Openings 1.31 (max. 2.00) 1.40 (max. 3.30) Pass Openings 1.31 (max. 2.00) 1.40 (max. 3.30) Pass After Maximum 10.0 m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa Pass	CO2 Emissions (t/ye	ar)		0.99	DFEE	47.92	TFEE	52.54		
Henry.knight@aessc.co.uk         Client         VISTRY Homes         UMARY FOR INPUT DATA FOR New Build (As Designed)         riterion 1 - Achieving the TER and TFEE rate         a TER and DER         Fuel for main heating       Mains gas         Fuel for comain heating       Mains gas         Fuel for comain heating       I.00 (mains gas)         Target Carbon Dioxide Emission Rate (TER)       19.86         Dwelling Carbon Dioxide Emission Rate (DER)       19.73         Inter and DEE       -0.13 (-0.7%)         Target Fabric Energy Efficiency (TFEE)       52.54         KgCO2/m <sup>2</sup> Pass         triterion 2 - Limits on design flexibility       47.92         Limiting Fabric Standards       2         2 Fabric U-values       Element         Element       Average       Highest         External wall       0.25 (max. 0.30)       0.25 (max. 0.70)       Pass         Roof       0.17 (max. 0.20)       -       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass         Are permeability       Sol (design value)       m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa       Pass <td>General Requireme</td> <td>nts Compliance</td> <td></td> <td>Pass</td> <td>% DFEE<tfee< td=""><td></td><td>8.79</td><td></td></tfee<></td>	General Requireme	nts Compliance		Pass	% DFEE <tfee< td=""><td></td><td>8.79</td><td></td></tfee<>		8.79			
UMARY FOR INPUT DATA FOR New Build (As Designed)         riterion 1 – Achieving the TER and TFEE rate         a TER and DER         Fuel for main heating       Mains gas         Fuel for main heating       1.00 (mains gas)         Target Carbon Dioxide Emission Rate (TER)       19.86       kgCO2/m²         Dwelling Carbon Dioxide Emission Rate (DER)       19.73       kgCO2/m²         Dwelling Carbon Dioxide Emission Rate (DER)       19.73       kgCO2/m²         Target Fabric Energy Efficiency (TFEE)       52.54       kWh/m²/yr         Dwelling Fabric Energy Efficiency (DFEE)       47.92       kWh/m²/yr         Dwelling Fabric Standards       KWh/m²/yr       Pass         2 Fabric U-values         Element       Average       Highest         External wall       0.25 (max. 0.30)       0.25 (max. 0.70)       Pass         Openings       1.31 (max. 0.20)       0.17 (max. 0.35)       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass         Za Thermal bridging       5.01 (design value)       m²/(h.m²) @ 50 Pa       Maximum	Assessor Details			t, Tel: 01173	183565,		Assessor ID	U528-0001		
Achieving the TER and TFEE rate         a TER and DER         Fuel for main heating       Main's gas         Fuel for main heating       1.00 (mains gas)         Target Carbon Dioxide Emission Rate (TER)       19.86       kgCO2/m²         Dwelling Carbon Dioxide Emission Rate (DER)       19.73       kgCO2/m²         Dwelling Fabric Energy Efficiency (TFEE)       52.54       kWh/m²/yr         Dwelling Fabric Energy Efficiency (DFEE)       47.92       kWh/m²/yr         Viterion 2 - Limits on design flexibility       44.6 (-8.8%)       kWh/m²/yr         Limiting Fabric Standards       2       2       Fabric U-values         Element       Average       Highest       Pass         Floor       0.18 (max. 0.20)       -       Pass         Ploor       0.18 (max. 0.20)       0.17 (max. 0.35)       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass         2 At permeability at 50 pas	Client	VISTRY Homes								
a TER and DER Fuel for main heating Main's gas Fuel factor 1.00 (mains gas) Target Carbon Dioxide Emission Rate (TER) 19.86 Dwelling Carbon Dioxide Emission Rate (DER) 19.73 buelling Carbon Dioxide Emission Rate (DER) 19.73 b TFEE and DFEE Target Fabric Energy Efficiency (TFEE) 52.54 twoh/m²/yr d.6 (-8.8%) twoh/m²/yr d.6 (-8.8%) twoh/m²/yr d.6 (-8.8%) twoh/m²/yr d.6 (-8.8%) twoh/m²/yr d.6 (-8.8%) twoh/m²/yr Ais exterion 2 – Limits on design flexibility Limiting Fabric Standards 2 Fabric U-values Element Average Highest External wall 0.25 (max. 0.30) 0.25 (max. 0.70) Pass Roof 0.17 (max. 0.20) - Floor 0.18 (max. 0.25) 0.18 (max. 0.70) Pass Roof 0.17 (max. 0.20) 0.17 (max. 0.35) Pass Roof 0.17 (max. 0.20) 0.17 (max. 0.35) Pass Roof 0.17 (max. 0.20) 0.17 (max. 0.30) Pass Ais permeability Thermal bridging calculated from linear thermal transmittances for each junction 3 Air permeability at 50 pascals 5.01 (design value) m²/(h.m²) @ 50 Pa Maximum 10.0 m²/(h.m²) @ 50 Pa Pass	UMARY FOR INPUT	DATA FOR New Build	d (As Desi	gned)						
Fuel for main heating       Mains gas         Fuel factor       1.00 (mains gas)         Target Carbon Dioxide Emission Rate (TER)       19.86       kgCO <sub>2</sub> /m <sup>2</sup> Dwelling Carbon Dioxide Emission Rate (DER)       19.73       kgCO <sub>2</sub> /m <sup>2</sup> Dwelling Carbon Dioxide Emission Rate (DER)       19.73       kgCO <sub>2</sub> /m <sup>2</sup> Determine       -0.13 (-0.7%)       kgCO <sub>2</sub> /m <sup>2</sup> Pass       -0.13 (-0.7%)       kgCO <sub>2</sub> /m <sup>2</sup> Determine	riterion 1 – Achievi	ng the TER and TFEE	rate							
Fuel factor       1.00 (mains gas)         Target Carbon Dioxide Emission Rate (TER)       19.86       kgCO <sub>2</sub> /m <sup>2</sup> Dwelling Carbon Dioxide Emission Rate (DER)       19.73       kgCO <sub>2</sub> /m <sup>2</sup> Dwelling Carbon Dioxide Emission Rate (DER)       19.73       kgCO <sub>2</sub> /m <sup>2</sup> -0.13 (-0.7%)       kgCO <sub>2</sub> /m <sup>2</sup> Pass         -0.13 (-0.7%)       kgCO <sub>2</sub> /m <sup>2</sup> Pass         -b TFEE and DFEE       -0.13 (-0.7%)       kgCO <sub>2</sub> /m <sup>2</sup> Target Fabric Energy Efficiency (DFEE)       47.92       kWh/m <sup>2</sup> /yr         Dwelling Fabric Standards       -4.6 (-8.8%)       kWh/m <sup>2</sup> /yr         Citterion 2 - Limits on design flexibility       -4.6 (-8.8%)       kWh/m <sup>2</sup> /yr         Limiting Fabric Standards	a TER and DER									
Target Carbon Dioxide Emission Rate (TER)       19.86       kgCO_/m <sup>2</sup> Dwelling Carbon Dioxide Emission Rate (DER)       19.73       kgCO_/m <sup>2</sup> -0.13 (-0.7%)       kgCO_/m <sup>2</sup> Pass         -b TFEE and DFEE       -0.13 (-0.7%)       kgCO_/m <sup>2</sup> Target Fabric Energy Efficiency (TFEE)       52.54       kWh/m <sup>2</sup> /yr         Dwelling Fabric Energy Efficiency (DFEE)       47.92       kWh/m <sup>2</sup> /yr         -4.6 (-8.8%)       kWh/m <sup>2</sup> /yr       Pass         Criterion 2 - Limits on design flexibility       44.6 (-8.8%)       kWh/m <sup>2</sup> /yr         Limiting Fabric Standards       2       2       Fabric U-values         Element       Average       Highest       Pass         Floor       0.18 (max. 0.20)       -       Pass         Roof       0.17 (max. 0.20)       0.17 (max. 0.35)       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass         Za Thermal bridging       5.01 (design value)       m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa       m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa         Maximum       10.0       m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa       Pass	Fuel for main hea	ting		Mains ga	as					
Dwelling Carbon Dioxide Emission Rate (DER)       19.73       kgCO2/m²       Pass         b TFEE and DFEE       -0.13 (-0.7%)       kgCO2/m²       kgCO2/m²         Target Fabric Energy Efficiency (TFEE)       52.54       kWh/m²/yr       kWh/m²/yr         Dwelling Fabric Energy Efficiency (DFEE)       47.92       kWh/m²/yr       Pass         criterion 2 – Limits on design flexibility       47.92       kWh/m²/yr       Pass         Criterion 2 – Limits on design flexibility       47.92       kWh/m²/yr       Pass         Criterion 2 – Limits on design flexibility       47.92       kWh/m²/yr       Pass         Z Fabric U-values       Element       Average       Highest       Pass         External wall       0.25 (max. 0.30)       0.25 (max. 0.70)       Pass         Party wall       0.00 (max. 0.20)       -       Pass         Floor       0.18 (max. 0.25)       0.18 (max. 0.70)       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass         2a Thermal bridging       Thermal bridging calculated from linear thermal transmittances for each junction       3/hr permeability         Air permeability       5.01 (design value)       m³/(h.m²) @ 50 Pa       m³/(h.m²) @ 50 Pa	Fuel factor			1.00 (ma	ains gas)					
b TFEE and DFEE	Target Carbon Die	oxide Emission Rate ( <sup>-</sup>	TER)	19.86			kgCO <sub>2</sub> /m <sup>2</sup>			
b TFEE and DFEE Target Fabric Energy Efficiency (TFEE) Dwelling Fabric Energy Efficiency (DFEE) 47.92 47.92 46 (-8.8%) w/h/m²/yr 4.6 (-8.8%) k/Wh/m²/yr Pass riterion 2 – Limits on design flexibility Limiting Fabric Standards 2 Fabric U-values Element Average Highest Element Average Highest Element Average National Solution 1.40 (max. 3.30) Pass Openings 1.31 (max. 2.00) 1.40 (max. 3.30) Pass Descent Air permeability Air permeability at 50 pascals Maximum 10.0 Maximum Mair March 2 (Pass) Solution Solution Solution Solution Maximum Note the solution Solution Solution Solution Maximum Solution So	Dwelling Carbon	Dioxide Emission Rate	e (DER)	19.73			kgCO <sub>2</sub> /m <sup>2</sup>	Pass		
Target Fabric Energy Efficiency (TFEE)       52.54       kWh/m²/yr         Dwelling Fabric Energy Efficiency (DFEE)       47.92       kWh/m²/yr         4.6 (-8.8%)       kWh/m²/yr       Pass         riterion 2 – Limits on design flexibility         Limiting Fabric Standards         2 Fabric U-values         Element       Average       Highest         External wall       0.25 (max. 0.30)       0.25 (max. 0.70)       Pass         Party wall       0.00 (max. 0.20)       -       Pass         Floor       0.18 (max. 0.25)       0.18 (max. 0.70)       Pass         Roof       0.17 (max. 0.20)       0.17 (max. 0.35)       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass         2a Thermal bridging       Sol1 (design value)       m³/(h.m²) @ 50 Pa       Maximum				-0.13 (-0	.7%)		kgCO <sub>2</sub> /m <sup>2</sup>			
Dwelling Fabric Energy Efficiency (DFEE)       47.92       kWh/m²/yr         -4.6 (-8.8%)       kWh/m²/yr       Pass         criterion 2 – Limits on design flexibility       Limiting Fabric Standards       2 Fabric U-values         Element       Average       Highest         External wall       0.25 (max. 0.30)       0.25 (max. 0.70)       Pass         Party wall       0.00 (max. 0.20)       -       Pass         Floor       0.18 (max. 0.25)       0.18 (max. 0.70)       Pass         Roof       0.17 (max. 0.20)       0.17 (max. 0.35)       Pass         Openings       1.31 (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       5.01 (design value)       m³/(h.m²) @ 50 Pa       Pass         Maximum       10.0       m³/(h.m²) @ 50 Pa       Pass	b TFEE and DFEE									
-4.6 (-8.8%)     kWh/m²/yr     Pass       iriterion 2 – Limits on design flexibility       Limiting Fabric Standards       2 Fabric U-values       Element     Average     Highest       External wall     0.25 (max. 0.30)     0.25 (max. 0.70)     Pass       Party wall     0.00 (max. 0.20)     -     Pass       Floor     0.18 (max. 0.25)     0.18 (max. 0.70)     Pass       Roof     0.17 (max. 0.20)     0.17 (max. 0.35)     Pass       Openings     1.31 (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     5.01 (design value)     m³/(h.m²) @ 50 Pa       Maximum     10.0     m³/(h.m²) @ 50 Pa     Pass	Target Fabric Ene	rgy Efficiency (TFEE)								
Criterion 2 – Limits on design flexibility         Limiting Fabric Standards         2 Fabric U-values         Element       Average       Highest         External wall       0.25 (max. 0.30)       0.25 (max. 0.70)       Pass         Party wall       0.00 (max. 0.20)       -       Pass         Floor       0.18 (max. 0.25)       0.18 (max. 0.70)       Pass         Roof       0.17 (max. 0.20)       0.17 (max. 0.35)       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass         Za Thermal bridging         Thermal bridging calculated from linear thermal transmittances for each junction         3 Air permeability       5.01 (design value)       m³/(h.m²) @ 50 Pa         Maximum       10.0       m³/(h.m²) @ 50 Pa       Pass	Dwelling Fabric E	nergy Efficiency (DFE	E)				kWh/m²/yr			
Limiting Fabric Standards         2 Fabric U-values       Highest         Element       Average       Highest         External wall       0.25 (max. 0.30)       0.25 (max. 0.70)       Pass         Party wall       0.00 (max. 0.20)       -       Pass         Floor       0.18 (max. 0.25)       0.18 (max. 0.70)       Pass         Roof       0.17 (max. 0.20)       0.17 (max. 0.35)       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass <b>2a Thermal bridging</b> Thermal bridging calculated from linear thermal transmittances for each junction <b>3 Air permeability</b> Air permeability at 50 pascals <u>5.01 (design value</u> )       m³/(h.m²) @ 50 Pa         Maximum       10.0       m³/(h.m²) @ 50 Pa       Pass				-4.6 (-8.8	3%)		kWh/m²/yr	Pass		
Z Fabric U-values       Highest         Element       Average       Highest         External wall       0.25 (max. 0.30)       0.25 (max. 0.70)       Pass         Party wall       0.00 (max. 0.20)       -       Pass         Floor       0.18 (max. 0.25)       0.18 (max. 0.70)       Pass         Roof       0.17 (max. 0.20)       0.17 (max. 0.35)       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass         Za Thermal bridging         Thermal bridging calculated from linear thermal transmittances for each junction         3 Air permeability at 50 pascals       5.01 (design value)       m³/(h.m²) @ 50 Pa         Maximum       10.0       m³/(h.m²) @ 50 Pa       Pass					_					
ElementAverageHighestExternal wall0.25 (max. 0.30)0.25 (max. 0.70)PassParty wall0.00 (max. 0.20)-PassFloor0.18 (max. 0.25)0.18 (max. 0.70)PassRoof0.17 (max. 0.20)0.17 (max. 0.35)PassOpenings1.31 (max. 2.00)1.40 (max. 3.30)PassDermal bridging calculated from linear thermal transmittances for each junction3 Air permeabilityAir permeability at 50 pascals $5.01$ (design value)m³/(h.m²) @ 50 PaMaximum10.0m³/(h.m²) @ 50 PaPass	Limiting Fabric St	andards								
External wall       0.25 (max. 0.30)       0.25 (max. 0.70)       Pass         Party wall       0.00 (max. 0.20)       -       Pass         Floor       0.18 (max. 0.25)       0.18 (max. 0.70)       Pass         Roof       0.17 (max. 0.20)       0.17 (max. 0.35)       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass <b>2a Thermal bridging</b> Thermal bridging calculated from linear thermal transmittances for each junction <b>3 Air permeability</b> Air permeability at 50 pascals       5.01 (design value)       m³/(h.m²) @ 50 Pa       m³/(h.m²) @ 50 Pa         Maximum       10.0       m³/(h.m²) @ 50 Pa       Pass	2 Fabric U-values									
Party wall       0.00 (max. 0.20)       -       Pass         Floor       0.18 (max. 0.25)       0.18 (max. 0.70)       Pass         Roof       0.17 (max. 0.20)       0.17 (max. 0.35)       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass <b>Za Thermal bridging</b> Thermal bridging calculated from linear thermal transmittances for each junction <b>Air permeability</b> Air permeability at 50 pascals       5.01 (design value)       m³/(h.m²) @ 50 Pa         Maximum       10.0       m³/(h.m²) @ 50 Pa       Pass	Element		Avera	ge		Highest				
Floor       0.18 (max. 0.25)       0.18 (max. 0.70)       Pass         Roof       0.17 (max. 0.20)       0.17 (max. 0.35)       Pass         Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass <b>2a Thermal bridging</b> Thermal bridging calculated from linear thermal transmittances for each junction <b>3 Air permeability</b> Air permeability at 50 pascals       5.01 (design value)       m³/(h.m²) @ 50 Pa         Maximum       10.0       m³/(h.m²) @ 50 Pa       Pass	External w	rall	0.25 (r	nax. 0.30)		0.25 (max. 0.70	))	Pass		
Roof0.17 (max. 0.20)0.17 (max. 0.35)PassOpenings1.31 (max. 2.00)1.40 (max. 3.30)Pass <b>2a Thermal bridging</b> Thermal bridging calculated from linear thermal transmittances for each junction <b>3 Air permeability</b> Air permeabilityAir permeability at 50 pascals5.01 (design value)m³/(h.m²) @ 50 PaMaximum10.0m³/(h.m²) @ 50 PaPass	Party wall		0.00 (r	max. 0.20)		-		Pass		
Openings       1.31 (max. 2.00)       1.40 (max. 3.30)       Pass <b>2a Thermal bridging</b> Thermal bridging calculated from linear thermal transmittances for each junction       Pass <b>3 Air permeability</b> Air permeability at 50 pascals       5.01 (design value)       m³/(h.m²) @ 50 Pa         Maximum       10.0       m³/(h.m²) @ 50 Pa       Pass	Floor		0.18 (r	nax. 0.25)		0.18 (max. 0.70	))	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	Roof		0.17 (r	nax. 0.20)		0.17 (max. 0.35	.17 (max. 0.35)			
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	Openings		1.31 (r	nax. 2.00)		1.40 (max. 3.30	))	Pass		
3 Air permeability         Air permeability at 50 pascals         Maximum         10.0         m³/(h.m²) @ 50 Pa         Pass	2a Thermal bridg	ing								
Air permeability at 50 pascals5.01 (design value)m³/(h.m²) @ 50 PaMaximum10.0m³/(h.m²) @ 50 PaPass	Thermal bridg	ing calculated from li	near ther	nal transmit	tances for each	junction				
Maximum         10.0         m³/(h.m²) @ 50 Pa         Pass	<u>3 Air permeabilit</u>	У								
Maximum         10.0         m³/(h.m²) @ 50 Pa         Pass	Air permeabil	ity at 50 pascals		5.01 (de	sign value)		m³/(h.m²) @ 50 Pa	l		
					- 1					
		Efficiencies								
	<b>4 Heating efficier</b>	ncv								

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)



Main heating system	Boiler system with radiators or underfloor - Mains gas Data from database	Pass		
	Ideal LOGIC COMBI ESP1 30			
	Combi boiler Efficiency: 89.6% SEDBUK2009 Minimum: 88.0%			
Secondary heating system	None			
5 Cylinder insulation				
Hot water storage	No cylinder			
<u>6 Controls</u>				
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 fittings	100 %			
Minimum	75 %	Pass		
8 Mechanical ventilation				
Not applicable				
terion 3 – Limiting the effects of heat gains in su	mmer			
Summertime temperature				
Overheating risk (Thames Valley)	Slight	Pass		
used on:				
Overshading	Average			
Windows facing North	5.55 m <sup>2</sup> , No overhang			
Windows facing South	3.66 m <sup>2</sup> , No overhang			
Air change rate	4.00 ach			
Blinds/curtains	None			
iterion 4 – Building performance consistent with	DER and DFEE rate			
Party Walls				
Type	U-value			
Filled Cavity with Edge Sealing	0.00 W/m²K	Pass		
Air permeability and pressure testing <u>3 Air permeability</u>				
Air permeability at 50 pascals	5.01 (design value) m <sup>3</sup> /(h.m <sup>2</sup> ) @ 50 Pa			
Air permeability at 50 pascals	5.01 (design value)       m³/(h.m²) @ 50 Pa         10.0       m³/(h.m²) @ 50 Pa			
Maximum	10.0 III / (II.III ) @ 50 Pa	_ F d S S		
Maximum Key features				
Key features	0.00			
Key features Party wall U-value	0.00 W/m²K			
Key features Party wall U-value Door U-value	0.90 W/m²K			
<u>) Key features</u> Party wall U-value				

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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	£4,000 - £6,000	£23	B 84	B 88	Recommended
Photovoltaic	£3,500 - £5,500	£373	A 97	A 100	Recommended
Wind turbine			0	0	Not applicable
Totals	£7,500 - £11,500	£396	A 97	A 100	
lotais	£7,500-£11,500	£396	A 97	A 100	

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