

Property details

MPRN	0	Shared MPRN	
BER Number	N/A	BER number assigned to shared dwelling	N/A
Address line 1	Rory Yates, GF Apartment	Type of Rating	Existing Dwelling
Address line 2	58 Mayorstone Drive	Purpose of Rating	Major Renovation
Address line 3	Mayorstone	Building Regulations	None
County	Co. Limerick	Planning Reference	
Eircode		Date of Plans	
Dwelling Type	Ground-floor apartment	Assessor Name	
Year of construction	1990	Date of Assessment	17/03/2025
Dwelling Extension	N/A	Assessor Comments	
Storeys	1	Assessor Description	Rory Yates

Dimension details

	Area [m ²]	Height [m]	Volume [m ³]
Ground floor	78.55	2.72	213.66
First floor	0.00	0.00	0.00
Second floor	0.00	0.00	0.00
Third and other floors	0.00	0.00	0.00
Room in Roof	0.00	0.00	0.00
Totals	78.55		213.66
Living Area	35.90 m ²		
Living Area Percentage	45.70 %		

Ventilation details

	Number	Air Change Rate [m3/h]
Chimneys	0	0.00
Open Flues	0	0.00
Fans & vents	1	10.00
Flueless combustion room heaters	0	0.00
Manufacturer		tbc tbc
Model		tbc
Has a permeability test been carried out	Yes	Is there a draught lobby on main entrance?
Infiltration rate due to structure [ac/h]	0.15	Draught lobby air change [ac/h]
Intermediate infiltration rate	0.25	Openings infiltration [ac/h]
Number of sides sheltered	0	Structure type
Adjusted infiltration rate [ac/h]	0.25	Is there a suspended wooden ground floor?
Effective air change rate [ac/h]	0.30	Windows/doors/attic hatches draught stripped [%]
Ventilation heat loss [W/K]	20.93	Ventilation method
Adjusted result of air permeability test [ac/h]	0.15	Balanced whole-house mechanical ventilation with heat recovery
Specific fan power [W/(l/s)]	0.89	How many wetrooms (inc. kitchen)? Is the vent. ducting flexible/rigid/both?
Heat exchanger efficiency [%]	90.00	k plus 3
Electricity for ventilation fans [Kwh/y]	231.99	Is MVHR ducting uninsulated where outside of insulated envelope?
Heat gains from ventilation fans [W]	11.41	Adjusted heat exchanger efficiency
		90.00

Building Elements - Floors

Type	Description	U/F Heating	Include in compliance check	In Roof	Age Band	Exposed Perimeter [m]	Area [m²]	U-Value [W/m²K]	Heat Loss (AU) [W/K]
Ground Floor - Solid	Existing Ground floor	Yes	No	No	2014 onwards	50.62	78.55	0.13	10.21
Total area [m²]									78.55

Type	Description	Include in compliance check	Insulation Thickness [mm]	Age Band	Area [m²]	U-Value [W/m²K]	Heat Loss (AU) [W/K]
Total area [m²]							0.00

Building Elements - Walls

Type	Description	Wall is semi-exposed	Include in compliance check	Age Band	Area [m²]	U-Value [W/m²K]	Heat Loss (AU) [W/K]
300mm Cavity	Existing GF wall	No	No	2014 onwards	107.06	0.18	19.27
300mm Cavity	New Build GF Wall 110mm Kingspan K8 or similar	No	No	2014 onwards	8.38	0.18	1.51
Total area [m²]							115.44

Building Elements - Doors

Count	Type	Description	Draught Stripped	Area [m ²]	U-Value [W/m ² K]	Heat Loss (AU) [W/K]
1	Solid exposed door	Existing Front, Rear & Left doors	Yes	6.45	1.40	9.03
Total area [m²]						6.45

Building Elements - Windows

Count	Glazing Type	Frame Type	Frame Factor	Solar Transm.	In Roof	Over shading	Orient.	Area [m²]	U-value [W/m²K]
1	Triple-glazed, argon filled	Wood/PVC	0.700	0.450	No	Average or Unknown	South	10.15	0.90
1	Triple-glazed, argon filled	Wood/PVC	0.700	0.450	No	Average or Unknown	North	3.93	0.90
1	Triple-glazed, argon filled	Wood/PVC	0.700	0.450	No	Average or Unknown	East	1.10	0.90
1	Triple-glazed, argon filled	Wood/PVC	0.700	0.450	No	Average or Unknown	West	0.62	0.90
Total area [m²]									15.80

Heat loss details

Total glazed area [m ²]	15.80	Glazing ratio	0.07
Total glazed heat loss [W/K]	13.73	Summer solar gain [W/m ²]	411.8
Total effective collection area [m ²]	3.45	Total element area [m ²]	216.24
Total plane heat loss [W/K]	53.75	Thermal bridging factor [W/m ² K]	0.1500
Fabric heat loss [W/K]	86.18	Total heat loss [W/K]	107.11
Per m2	1.36		

Lighting and Internal Gains

Lighting Design Calculation Method	Bulb type only	Average Efficacy [lm/W]	66.90
Fixed lighting provision [klmh/y]	2928.03	Top up lighting requirement [klmh/y]	0.00
Energy required for fixed lighting [kWh/y]	78.07	Energy required for top up lighting [kWh/y]	0.00
Energy required for portable lighting [kWh/y]	122.60		
Basic energy consumption for lighting [kWh/y]	710.79	Water heating (In watts [W])	140.81
Annual energy used for lighting [kWh/y]	200.68	Occupants (In watts [W])	121.74
Internal gains from lighting during heating season [kWh/hs] (In watts [W])	153.52 (26.32)	Mechanical ventilation (In watts [W])	11.41
Lighting (In watts [W])	26.32	Heat loss to the cold water network (In watts [W])	-35.91
Appliance and cooking (In watts [W])	177.52	Net internal gains (In watts [W])	441.89

Lights

Count	Name	Description	Type	Efficiency	Power [W]
55	Default LED/CFL		LED/CFL	66.90	

Water heating details

Are there distribution losses?	Yes	Is supplementary electric water heating used in summer?	No
Are there storage losses?	Yes	Is there a combi boiler?	No
Is there a solar water heating system?	No	Total hot water demand [kWh/y]	2443.64
Standard number of occupants	2.43	Temperature factor unadjusted	0.89
Number of mixer showers	3	Temperature Factor Multiplier	0.81
Number of electric showers	0	Hot water storage loss factor [kWh/l d]	0.00
Number of baths	1	Volume factor	0.00
Daily hot water use [Litres/d]	155.84	Combi-boiler electricity consumption [kWh/y]	0.00
Hot water energy reqs. at taps [kWh/y]	2077.10	Adjusted storage loss [kWh/y]	526.26
Distribution losses [kWh/y]	366.55	Adjusted primary circuit loss [kWh/y]	0.00
Water storage volume [Litres]	200.00	Heat gains from water heating system [W]	140.81
Is manufacturers declared loss factor available?	Yes	Output from supplementary heater [kWh/y]	0.00
Declared loss factor [kWh/d]	2.00		
Manufacturer and Model name	TBC		
Insulation type	N/A		
Insulation thickness [mm]	N/A		

Type of mixer shower	Flow restriction	Flow rate [l/min]	HW usage [l/day]	WWHRS Manufacturer/Model	WWHRS efficiency	WWHRS Utilisation Factor	Energy Savings [kWh/yr]
Vented hot water system + pump	No	12.000		Any / Any			
Total :			90.43				0.00

Combi-boiler Type	None	Output from main water heater [kWh/y]	2969.90
Combi-boiler loss [kWh/y]	0.00	Annual Heat gains from water heating system [kWh/y]	1233.52
Keep Hot facility	None	WWHRS input to main system [kWh/y]	0.00
Storage Loss	526.26	WWHRS input to supplementary system [kWh/y]	0.00
Storage Type	Heat pump with integral hot water storage / Integrated thermal store and gas-fired CPSU		

Primary Circuit loss type Boiler / heat pump and thermal store within a single casing (cylinder thermostat present)

Primary circuit loss [kWh/y]	0.00	Heat Pump Type of DHW	Integral Hot Water Storage
Is hot water storage indoors or in group heating system	Yes		

Net space heat demand

Required temp. during heated hours	21.00	Length of one unheated period [h]	8
Required temperature rest of dwelling	18.00	Unheated periods per week	14
Living area percentage	45.70	Heat use during heating season [kWh/y]	2998.58
Required mean internal temperature [°C]	19.37	Heat use for full year [kWh/y]	3063.54
Thermal mass category of dwelling	Medium-high		

	Utilisation factor	Intermittent heating
Internal heat capacity of dwelling [per m²]	0.32	0.15
Internal heat capacity [MJ/K]	25.14	11.78

Space heat demand details

Month	Mean Ext. Temp [°C]	Adj. Int. Temp [°C]	Heat Loss [W]	Heat Use [kWh]	Gain/Loss Ratio	Utilisation Factor	Heat Use [W]	Useful Gains [W]	Solar Gain [W]
January	5.3	18.24	1386	609	0.41	0.99	818	568	129
February	5.5	18.26	1367	485	0.48	0.99	721	645	210
March	7.0	18.38	1219	387	0.59	0.98	520	699	275
April	8.3	18.48	1091	259	0.71	0.95	359	731	329
May	11.0	18.70	825	99	0.99	0.85	133	692	377
June	13.5	18.90	578	22	1.40	0.68	31	547	368
July	15.5	19.06	381	3	2.08	0.48	4	377	350
August	15.2	19.04	411	5	1.90	0.52	6	405	340
September	13.3	18.88	598	35	1.25	0.74	48	550	303
October	10.4	18.65	884	183	0.78	0.93	246	638	246
November	7.5	18.42	1170	412	0.52	0.99	573	597	164
December	6.0	18.30	1317	565	0.43	0.99	760	558	119

Space Heating

Type	Space Heating Standard	Fuel	Design flow temp[°C]	Daily Operation [h]	SH Seasonal eff.	WH Seasonal eff.	Heats water	Source
Heat pumps	I.S. EN 14825	Electricity	35	24	621.65	220.38	Yes	Assessor

Model Daikin Erla14DV3 EBVH16S18

Manufacturer Daikin Erla14DV3 EBVH16S18

Back Up Space Heater Fuel Electricity **Back Up Space Heater Efficiency [%]** 100.00

Back Up Water Heater Fuel Electricity **Back Up Water Heater Efficiency [%]** 100.00

Heating System Test data: I.S. EN 14825

Heat Pump Type Air to Water

Test Condition - Low (35°C)

	A (88%) -7°C	B (54%) 2°C	C (35%) 7°C	D (15%) 12°C	E* (100%) TOL
Source	A-7	A2	A7	A12	A-10
Sink	W34	W30	W27	W24	W35
Heating Capacity (kW)	9.80	6.10	4.60	5.40	9.10
Coefficient of Performance (kW/kW)	2.99	4.35	6.70	8.65	2.71

Test Condition - Medium (55°C) *

	A (88%) -7°C	B (54%) 2°C	C (35%) 7°C	D (15%) 12°C	E* (100%) TOL
Source	A-7	A2	A7	A12	A-10
Sink	W52	W42	W36	W30	W55
Heating Capacity (kW)	8.50	6.20	4.40	5.30	7.00
Coefficient of Performance (kW/kW)	1.80	3.28	4.88	6.58	1.76

Heating System Test data: I.S. EN 16147

Source of Data	Water heating energy efficiency [%]
Co-efficient of Performance [kW/kW]	0.00
Water heating energy efficiency [%]	109.00
Reference Hot water Temperature [°C]	51.50
Hot water Rated Heat output P_{rated} [kW]	11.00
Declared load profile	XL
Standing heat loss of test storage tank [kWh/day]	1.40
Volume of DHW accounted for in test [litre]	295
Heat Pump Type	Air to Water

Dist. System Losses and Gains

Temperature adjustment [°C]	0	Additional heat emissions due to non ideal control and responsiveness [kWh/y]	352.75
Heating system control category	3		
Heating system responsiveness category	4	Gross heat emission to heated space [kWh/y]	3351.33
Mean internal temperature during heating hours [°C]	19.37	Mean internal temperature [°C]	18.99

	Number present	Boiler controlled by thermostat	Inside dwelling	Electricity consumption [kWh/y]	Heat gain [W]
Central heating pumps	1	Yes	Yes	130	10
Oil boiler pumps	0	No	No	0	0
Gas boiler flue fan	0			0	
Warm air heating or fan coil radiators present	No			0	0
Totals				130	10

Note: Wet central heating systems are likely to have one or more central heating pumps.

Gains from fans and pumps associated with space heating system [kWh/y]	58	Is there underfloor heating on the ground floor?	Yes
Average utilisation factor, October to May	0.96	U-Value of ground floor [W/m²K]	0.13
Useful net gain [kWh/y]	56	Fraction of heating system output from ground floor	1.00
Net heat emission to heated space [kWh/y]	3295	Additional heat loss via envelope element [kWh/y]	51.41
Annual space heating requirement [kWh/y]	3347		

Energy Requirements: Individual Heating Systems

Manufacturer name		Daikin Erla14DV3 EBVH16S18	
Model name		Daikin Erla14DV3 EBVH16S18	
Brand name		N/A	
Model Qualifier		N/A	
Indoor unit identifier		N/A	
Outdoor unit identifier		N/A	
Efficiency of main heating system [%]	621.65	Fraction of heat from secondary system	N/A
Efficiency adjustment factor	1.00	Efficiency of secondary system [%]	N/A
Adjusted efficiency of main heating system [%]	621.65	Energy required for main heating system [kWh/y]	538.39
Product index number	N/A	Energy required for secondary heating system [kWh/y]	0
Manufacturer's reference number	N/A	Low temperature test condition (35°C)	N/A
Appliance ID	N/A	Intermediate temperature test condition (45°C)	N/A
Rated air flow rate [m³/h]	N/A	Medium temperature test condition (55°C)	N/A
		High temperature test condition (65°C)	N/A

Fraction of main space and water heat from CHP		Efficiency adjustment factor	1.0000
Heat demand from CHP	0.0	Adj. efficiency of main water heating system [%]	220.38
Efficiency of main water heating system [%]	220.38	Water Heating Efficiency [%]	109
Manufacturer name	Daikin Erla14DV3 EBVH16S18	Energy req. for main water heater [kWh/y]	2358.35
Model name	Daikin Erla14DV3 EBVH16S18	Energy req. for secondary water heater [kWh/y]	0.00
Heat Pump Type	Air to Water		
Water Heating Standard	I.S. EN 16147		

	Fuel Type	Primary energy conversion factor	CO₂ emission factor
Main space heating system	Electricity	1.75	0.224
Secondary space heating system	None	0.00	0.000
Main water heating system	Electricity	1.75	0.224
Supplementary water heating system	Electricity	0.00	0.000
Cooling System	None	0.00	0.000
Pumps, fans	Electricity	1.75	0.224
Energy for lighting	Electricity	1.75	0.224

CHP data

Heat output from CHP [kWh/y]	0.00	CHP Fuel type	N/A
Electrical efficiency of CHP		Energy delivered to CHP [kWh/y]	0
Heat efficiency of CHP		Electrical output from CHP [kWh/y]	0

Summer internal gains

Dwelling volume [m ³]	213.656	Total gains in summer [W]	853.69
Effective air change rate for summer period [ac/h]	0	Temperature increment due to gains [°C]	9.91
Ventilation heat loss coefficient [W/K]	0.00	Summer mean external temperature [°C]	15
Fabric heat loss coefficient [W/K]	86.18	Heat capacity parameter	0.32
Heat loss coefficient under summer conditions [W/K]	86.18	Temperature increment related to thermal mass [°C]	0.00
Total Solar Gain for Summer Period [W]	411.80	Threshold internal temperature [°C]	24.91
Internal gains [W]	441.89		

Results

	Delivered energy [kWh/y]	Primary energy [kWh/y]	CO ₂ emissions [kgCO ₂ /y]
Main space heating system	538	942	121
Secondary space heating system	0	0	0
Main water heating system	1348	2358	302
Supplementary water heating system	0	0	0
Cooling	0	0	0
Pumps and fans	362	633	81
Energy for lighting	201	351	45
CHP input (individual heating systems only)	0	0	0
CHP electric output (individual heating systems only)	0	0	0
Renewable and energy saving technologies			
Energy produced and saved	0	0	0
Energy consumed by the technology	0	0	0
Total	2449	4285	549
Per m ² floor area	31.17	54.55	6.98
Energy Rating	A3		