Land East of Mousdell Close, Ashington

Energy Statement

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Revision Schedule

Revision No.	Date	Details of Change
Rev 00	05/08/2025	First Issue
Rev 01	11/08/2025	Conclusion updated to clarify PV requirement

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1.0 Introduction

Penn Gardens Properties Ltd have instructed impact Sustainability Ltd to prepare an energy strategy for the proposed development of the Land East of Mousdell Close in Ashington, West Sussex.

The application site is a greenfield site located to the south of Rectory Lane in Ashington and extends to approximately 2.19 hectares. The proposal seeks to deliver a sustainable development of 74 new homes, including 35.1% affordable housing. The proposed plots comprise a mix of 1-bed houses, 2-bed houses, 3-bed houses, 4-bed houses, 1-bed flats and 2-bed flats.

As the development falls within the Horsham area, it is subject to Horsham District Council (HDC) planning policy. Under HDC's Planning Framework, Policy 36 stipulates that an energy statement must be submitted to demonstrate the application of the energy hierarchy:

Be lean: use less energy

Be clean: supply energy efficiently

Be green: use renewable energy

This report therefore assesses the performance of the proposed development in terms of energy efficiency measures, viability of district heating connection / on-site CHP and potential specification of Low and Zero Carbon (LZC) technologies.

This report has been completed by George Kent of Impact Sustainability Ltd, who is a registered Domestic Energy Assessor (DEA) and Non-Domestic Low Carbon Energy Assessor (LCEA) George has 17 years continuous experience in energy simulation and consultancy and is not professionally connected or affiliated with any LZC technology or manufacturer. George is therefore considered to be an 'Energy Specialist.'

2.0 Planning Policy

The site is located within the district of Horsham and so is subject to Horsham District Council's Planning Policies. Within the Horsham District Planning Framework (November 2015), Policy 36 Strategic Policy addresses 'Appropriate Energy Use.' Within this policy it is confirmed that all development will be required to contribute to clean, efficient energy in Horsham based on the following hierarchy:

Be lean: use less energy, e.g., through demand reduction

Be clean: supply energy efficiently – e.g., through heat networks

Be green: use renewable energy sources

Furthermore, developments within heat priority areas or strategic development locations will be expected to connect to district heat networks where they exist using the following hierarchy or be 'network ready' to allow for a future connection if one does not already exist.

1. Connection to existing (C)CHP distribution networks
2. Site wide renewable (C)CHP
3. Site wide gas-fired (C)CHP
4. Site wide renewable community heating/cooling
5. Site wide gas-fired community heating/cooling
6. Individual building renewable heating
7. Individual building heating, with the exception of electric heating

Compliance with the above must be demonstrated through the submission of an Energy Statement, which quantifies how the development will comply with the energy hierarchy. The aim of this energy statement is to therefore demonstrate compliance with HDC's Planning Framework (Nov 2025) Policy 36.

An excerpt from the Planning Framework document showing Policy 36 is provided in figure 2.1 below.

Policy 36

Strategic Policy: Appropriate Energy Use

Energy hierarchy

All development will be required to contribute to clean, efficient energy in Horsham based on the following hierarchy:

1. Lean – use less energy – e.g. through demand reduction
2. Clean – supply energy efficiently – e.g. through heat networks
3. Green – use renewable energy sources

District Heating and Cooling

Commercial and residential developments in Heat Priority Areas or the strategic development locations will be expected to connect to district heating networks where they exist using the following hierarchy, or incorporate the necessary infrastructure for connection to future network.

Development should demonstrate that the heating and cooling systems have been selected in accordance with the following heating and cooling hierarchy;

1. Connection to existing (C)CHP distribution networks
2. Site wide renewable (C)CHP
3. Site wide gas-fired (C)CHP
4. Site wide renewable community heating/cooling
5. Site wide gas-fired community heating/cooling
6. Individual building renewable heating
7. Individual building heating, with the exception of electric heating

All (C)CHP must be of a scale and operated to maximise the potential for carbon reduction. Where site-wide (C)CHP is proposed, consideration must be given to extending the network to adjacent sites.

Energy Statements

All applications for residential or commercial development must include an Energy Statement demonstrating and quantifying how the development will comply with the Energy Hierarchy.

Developments in Heat Priority Areas and strategic developments should demonstrate and quantify how the development will comply with the heating and cooling hierarchy. Horsham District Council will work proactively with applicants on major developments to ensure these requirements are met.

Renewable energy schemes

The Council will permit schemes for renewable energy (e.g. solar) where they do not have a significant adverse effect on landscape and townscape character, biodiversity, heritage or cultural assets or amenity value. Community initiatives which seek to deliver renewable and low carbon energy will be encouraged.

Figure 2.1 HDC's Planning Framework (Nov 2015) Policy 36

3.0 Baseline Assessment

3.1 Summary

To complete the energy assessment of the site a total of nine plot types were selected and an initial SAP assessment was completed upon each. The plot types assessed were:

- HT-01 (plot 31) – A 2-bed semi-detached house over 2 floors
- HT-02 (plot 41)– A 3-bed semi-detached house over 2 floors
- HT-03 (plot 19) – A 3-bed semi-detached house over 3 floors
- HT-03 (plot 51) – A 3-bed mid-terrace house over 3 floors
- HT-05 (plot 34) – A 4-bed detached house over 2 floors
- HT-07 (plot 29) – A 4-bed semi-detached house over 3 floors
- Flat Type 1 GF (plot 67) – A 1-bed flat at ground floor level
- Flat Type 1 1F (plot 70) – A 1-bed flat at first floor level
- Flat Type 1 2F (plot 73) – A 1-bed flat at first floor level

The geometry data inputs to these calculations have been based upon the following planning issue site plan, plan and elevation drawings issued by ECE Architecture:

- 7578 - PL-20 Floor Plans and Elevations HT01 semi
- 7578 - PL-21 Floor Plans and Elevations HT02 semi
- 7578 - PL-22 Floor Plans and Elevations HT03 semi
- 7578 - PL-30 Floor Plans and Elevations HT03 - HT03 - HT10 - HT11
- 7578 - PL-24 Floor Plans and Elevations HT05A - HT05B
- 7578 - PL-31 Floor Plans and Elevations Flats7578 - PL-26 Floor Plans and Elevations HT07 semi
- 7578 - PL-01A Proposed Site Layout

These plot types were selected for analysis as they broadly represent the range of different plot types and levels of external exposure present on the site plan drawings provided.

As the SAP process reports regulated CO_2 emissions in $kgCO_2/m^2/yr$ the most appropriate plot type from the list above was allocated to each plot on the site plan and the total floor area of each type was summed. The SAP results for each sample assessment were then multiplied by the total floor area of each type to obtain an estimate of CO_2 emissions at each stage. The SAP process was then repeated at each stage of the energy hierarchy.

3.2 Baseline Assessment Results

Table 3.1 below shows the CO_2 breakdown of the baseline compliance analysis. The baseline annual CO_2 emissions are 72,885 kgCO_2 per annum based upon the Target Emission Rates calculated from the Part L 2021 software results.

Plot Type	Total Floor Area m^2	Part L 2021 TER ($kg/m^2/yr$)	Total CO_2 (kg/yr)
2-bed semi-detached, 2-storey	932.0	11.50	10,718
3-bed semi-detached, 2-storey	1554.0	10.60	16,472
3-bed semi-detached, 3-storey	1311.0	10.50	13,766
3-bed mid-terrace, 3-storey	212.6	9.59	2,039
4-bed detached, 2-storey	1435.1	10.86	15,585
4-bed semi-detached, 3-storey	248.0	9.89	2,453
Ground floor flat	532.8	8.63	4,598
Mid floor flat	367.8	6.56	2,413
Top floor flat	395.2	12.25	4,841
Site Wide Baseline CO_2 emissions			**72,885**

Table 4.1 Annual Baseline Regulated CO_2 Emissions

4.0 'Be Lean' Assessment

4.1 Summary

The first step of the energy hierarchy is to improve a development's energy demand through the specification of thermally efficient building fabric and services. To reduce this energy demand from each of the plots, high performance thermal insulation will be specified to reduce envelope u-values below what is required for AD L1 2021 compliance. The details from recognised thermal bridging scheme will also be followed.

The building fabric construction details have been based upon initial discussions with the design team and similar project experience. These have been included within the assessment models as shown in table 4.1 below. The adventitious air permeability rate within each assessed plot is 4 $m^3/hr/m^2$ at a pressure of 50 Pa, which is 50% reduction below the current Part L limiting value of 8 $m^3/hr/m^2$ at a pressure of 50 Pa.

Building Element	U-Value W/m²K	Part L 2021 U-Value W/m²K
External walls	0.18	0.26
Ground floor	0.12	0.18
Roof / insulated ceiling	0.12	0.16
Windows/ glazed doors	1.40	1.60
Solid doors	1.40	1.60
Air Permeability ($m^3/hr/m^2$)	4.00	8.00

Table 4.1 Target Building Fabric U-Values and Air Permeability

To further reduce the energy demand and associated CO_2 emissions from the proposed development site the efficiency of the building services strategy must also be considered.

An Air Heat Source Heat Pump (ASHP) is proposed to deliver both space heating and hot water, which has a high efficiency (known as Coefficient Of Performance, or COP) compared to traditional gas-fired systems. This system will also utilise grid electricity, which has lower CO_2 emissions per kWh than mains gas. This heat pump utilises ambient air as a heat source.

The ventilation strategy adopted will be natural with trickle vents and local extract fans to wet rooms and kitchens.

Lighting throughout will be low energy LED, with an efficacy of at least 85 lamp-lumens per circuit-watt.

The proposed services strategy is summarised within table 4.2 below.

System	System Details	Delivery Method / Controls
Heating	Air Source Heat Pump (assumed Daikin Altherma in SAP calculation, ref nr 107681)	Radiators
Ventilation	Natural ventilation with trickle vents on windows	Windows with trickle vents
	Local extract fans	Wet rooms and kitchens
Hot water	From main heating system	Storage vessel sized appropriately for no. bedrooms
Lighting	LED, assumed 85 lms/W	Manual control

Table 5.2 'Be Lean' stage Residential Building Services Systems & Performance Data

4.2 Be Lean' Assessment Results

The results of the 'Be Lean' assessment are shown in table 5.3 below. These demonstrate that the site has CO_2 emissions of 38,115 kg per annum. This is a reduction of 47.7% below the baseline figure.

Plot Type	Total Area m^2	Part L 2021 TER ($kg/m^2/yr$)	Part L 2021 DER ($kg/m^2/yr$)	Total CO_2 (kg/yr)	Reduction below TER (%)
2-bed semi-detached, 2-storey	932.0	11.50	5.87	5,471	49.0%
3-bed semi-detached, 2-storey	1554.0	10.60	5.51	8,563	48.0%
3-bed semi-detached, 3-storey	1311.0	10.50	5.06	6,634	51.8%
3-bed mid-terrace, 3-storey	212.6	9.59	4.74	1,008	50.6%
4-bed detached, 2-storey	1435.1	10.86	5.39	7,735	50.4%
4-bed semi-detached, 3-storey	248.0	9.89	4.67	1,158	52.8%
Ground floor flat	532.8	8.63	5.96	3,175	30.9%
First floor flat	367.8	6.56	5.46	2,008	16.8%
Second floor flat	395.2	12.25	5.98	2,363	51.2%
Site Wide Be Lean CO_2 emissions				**38,115**	
Site Wide Reduction below baseline				**47.7%**	

Table 5.3 Annual 'Be Lean' Regulated CO_2 Emissions

5.0 'Be Clean' Assessment

5.1 District Heat Networks

HDC Planning Framework Policy 36 stipulates a requirement for the viability of connection to district heating systems to be assessed. The 'West Sussex Sustainable Energy Study' was completed by the Centre for Sustainable Energy in October 2009, in which it is confirmed that the town of Horsham is considered to be a 'Heat Priority Area'. This is defined as an area *"in which conditions are likely to favour larger scale, more economic and effective forms of sustainable energy generation such as CHP with district heating (and/or cooling)."*

However, the proposed development site lies approximately 9 miles to the South of Horsham. At the time of writing no current heat network exists within the village of Ashington and there are no proposed future networks due to the rural location. Therefore, connection to a district heating system is not a viable option at this location.

In order to allow provision for connection to a district heating system in the future the heating system would need to be designed with future connection capability in mind. This would require the use of a centralised heating system across the whole development site, which would not be practical for individual dwellings with separate ownership and/or occupancy. A centralised heating strategy would also not be compatible with the efficient strategy discussed at the 'be lean' stage and so would make this unviable.

5.1 Combined Heat & Power

Combined heat and power (CHP), also known as cogeneration, is the simultaneous generation of thermal and electrical energy from a single stream of fuel. A CHP engine burns fuel to run a turbine, which in turn generates electricity. The 'waste' heat from the combustion process is then used to provide heating and hot water within the building. In this way electricity from conventional power stations is displaced and the substantial conversion, transmission and distribution losses are avoided.

Systems must be 'heat lead' for high efficiency, which best suits applications to situations where there is a significant demand for heat for long periods of time, such as hospitals, hotels and leisure centres. As the development is residential in nature the hot water usage profile is not well suited to CHP, as CHP engines require a continuous load to ensure they operate all the time and realise the potential carbon savings.

Furthermore, CHP does not perform particularly well against the new Part L2 2021 standard, as the gas used to generate the electricity within the unit actually has higher CO_2 emissions per kWh than grid supplied electricity. A CHP engine would therefore put the development at a disadvantage in terms of building regulations and planning policy compliance.

A CHP-led system would require the use of a centralised heating system, which as discussed is not a feasible option for a development of this nature. It is also unlikely to offer any carbon reduction under the new Building Regulations. Therefore, a gas fired CHP engine is not considered to be an appropriate energy strategy due to the lack of carbon reduction that will be realised, the difficulty in matching the operation to the varying hot water demand of the building and the overall small scale of the site.

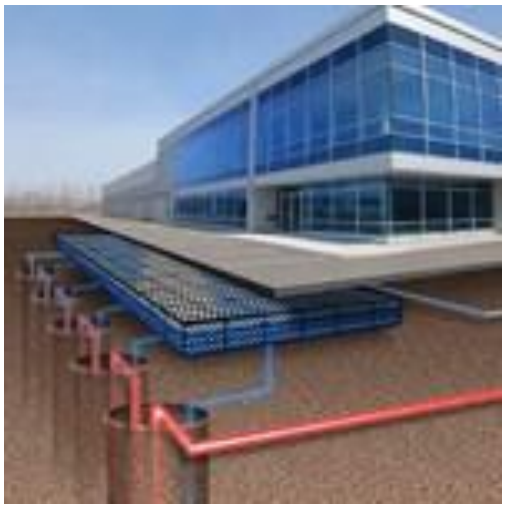
For the reasons stated above no further reduction in emissions can be achieved from the 'be clean' stage of the analysis.

6.0 'Be Green' Assessment

6.1 Summary

The commentary below provides an overview of the potential LZC technologies available for specification within the development and discusses the associated opportunities and constraints.

6.2 Ground Source Heat Pumps



A ground sourced heat pump (GSHP) is a system used to extract heat from the ground to provide space heating and domestic hot water within buildings. At a depth of 2m below the surface the ground remains at a relatively constant temperature throughout the year (approximately 10-12^{0}C in England) and so this can be used as a heat source. A heat transfer fluid is circulated through a closed loop buried in the ground and passes through a heat exchanger in the heat pump that extracts heat from the fluid through a vapour compression cycle, similar to a refrigerator in reverse.

Sufficient area is available on site for either a horizontal system or a vertical system. However, neither a vertical system nor a horizontal system is likely to be financially viable as individual systems (and boreholes with a vertical loop) would be required for each property. A GSHP system would therefore only be practical if a central energy centre were considered, which as previously discussed is not considered to be a viable option. Therefore, a GSHP system is not considered to be a practical option for this project.

6.3 Air Source Heat Pumps

In a similar way to GHPSs, Air Source Heat Pumps (ASHPs) extract renewable heat from the outside air using an external condenser unit and vapour compression cycle. This is then transferred through refrigeration pipework to an indoor unit, which conveys that heat to the heating emitters and / or hot water cylinder. This system can provide 100% of heating within a building when sized correctly.

As discussed, the proposed plots will utlise ASHPs to provide both space heating and domestic hot water. With the lower emissions factor associated with grid supplied electricity in Part L 2021 and the high Co-Efficient of Performance (COP) of ASHPs this strategy will offer a low carbon solution to heating and domestic hot water provision.

However, as discussed within section 4.1, this has already been considered within the 'be lean' strategy and so cannot be considered again at this stage.

6.4 Biomass

Within a biomass system waste timber, in the form of wood chips and pellets, can be used as fuel in boilers to provide heating and hot water within buildings. Biomass generation is close to carbon neutral, meaning the CO_2 that is emitted by the combustion is comparable to the CO_2 that is removed from the atmosphere during the life of the tree. Wood chips and pellets present no risk if accidentally released into the environment and there are no harmful by-products. The flue gas is smoke-free and the ash content of between 0.5% and 3% by volume (depending on material), is minimal.

Biomass heating systems are typically sized to meet the majority of the building heating load, with gas condensing boilers providing the additional input required at peak times to reduce the amount of on/off cycling of the biomass boilers. A biomass boiler system would therefore need to be coupled with gas fired boilers to offer a bivalent heating solution.

It would not be practical to install individual biomass boilers with gas boiler back-up at each plot and so such a system would need to form part of a centralised energy network, which as discussed in section 5.1 is not a viable option for the proposed residential site. Concerns around security of fuel supply and the high level of maintenance required mean this system would not suited to a residential development. Furthermore, the flue emissions from the boiler could affect local air quality and may not comply with Local Authority policy in this regard.

For these reasons, a biomass heating system is not considered to be viable for the development site.

6.5 Solar thermal

Solar thermal heating systems use renewable energy from the sun to heat water, most commonly in the UK for hot water needs. The systems use a heat collector, generally mounted on the roof in which a fluid is heated by the sun. This fluid is passed through a heat exchanger and used to heat up water, which is stored in either a separate hot water cylinder or a twin coil hot water cylinder inside the building. There are two types of collectors used for solar water heating applications - flat plate collectors and evacuated tube collectors. Evacuated tube collectors are generally more expensive due to a more complex manufacturing process (to achieve the vacuum) but offer a higher performance during winter months.

A solar thermal system would normally supply heat to a cylinder within the building in conjunction with a typical gas boiler arrangement. The solar thermal system would therefore need to feed into a central buffer vessel, which would then be 'topped up' by the primary heat generator.

A solar thermal system may be preferable than photovoltaics (PV) for use with a system that is gas-fired, since gas has a higher emissions factor than electricity in Part L 2021. However, as the proposed heating and hot water strategy is likely to be electrically powered this will not be a factor. Furthermore, once the stored domestic hot water reaches the set point temperature, any additional heat captured from the solar thermal system would have nowhere to go and would need

'dumped' to avoid the system overheating.

A solar thermal system would need to be installed on the roof of each plot. However, this would be in direct competition for roof space with photovoltaics (PV), which would offer a low maintenance method of offsetting emissions.

For these reasons, individual solar thermal hot water systems to each plot are not considered to be viable for this development.

6.6 Photovoltaics

Solar photovoltaic (PV) technology is a semi-conductor based technology that converts the energy in sunlight into electricity. The term describes a solid-state electronic cell that produces direct current electrical energy from the radiant energy of the sun. When sunlight strikes the surface of a PV cell, this electrical field provides momentum and direction to light-stimulated electrons, resulting in a flow of direct current when the solar cell is connected to an electrical load. The PV systems should be unshaded as shading, even over a small area of the panel, can significantly reduce performance. Excess energy can be exported to the grid, ensuring CO_2 savings can always be made.

A PV array could be installed on the roofs of any plots where required. The energy generated by a PV array would be used directly within the house / flat, with any excess energy generated that is not used exported back to the grid for a small export tariff.

Individual PV arrays could be installed on some roofs to further reduce CO_2 emissions, and this technology is therefore considered to be viable and preferable.

6.7 'Be Green' Strategy & Results

The above appraisal concludes that a PV array would be the most viable technology for consideration within the energy strategy.

At the 'be lean' stage of the assessment the SAP calculations (provided in Appendix 1) indicated that plot types HT-01, HT-02, ground floor flat type 1 and first floor flat type 1 would exceed the target Primary Energy Rate (TPER) metric and so would not be compliant with Approved Document Part L1. Therefore, a roof mounted PV array has been included within the SAP assessments for each of these plot types at the 'Be Green' stage to ensure overall Part L compliance is achieved. These results have then been applied on a floor area pro rata basis to all similar plot types on the site.

Commercially available PV panels for residential use have an area of approximately 2.0sqm and can achieve a peak output of 400Wp each. To ensure overall Part L1 compliance is achieved the following quantities of PV have been included within the 'Be Green' SAP assessments for the relevant plot types:

- HT-01 (plot 31) – 0.4 kWp East facing
- HT-02 (plot 41) – 0.4 kWp East facing
- Ground floor flat type 1 (plot 67) – 1.6 kWp South facing
- First floor flat type 1 (plot 70) – 2.4 kWp South facing

Applying the above to all relevant plots on site on a floor area pro rata basis results in a site-wide PV requirement of 38.31 kWp, which is a total of approximately 96no 400 Wp panels.

The results of the 'Be Green' assessment are shown in table 6.1 below. These demonstrate that the site achieves 'be green' emissions of 35,680 kgCO_2/annum, which is a reduction of 51.0% below the baseline figures.

Plot Type	Total Area m^2	Part L 2021 TER ($kg/m^2/yr$)	Part L 2021 DER ($kg/m^2/yr$)	Total CO_2 (kg/yr)	Reduction below TER (%)
2-bed semi-detached, 2-storey	932.0	11.50	5.50	5,126	52.2%
3-bed semi-detached, 2-storey	1554.0	10.60	5.20	8,081	50.9%
3-bed semi-detached, 3-storey	1311.0	10.50	5.06	6,634	51.8%
3-bed mid-terrace, 3-storey	212.6	9.59	4.74	1,008	50.6%
4-bed detached, 2-storey	1435.1	10.86	5.39	7,735	50.4%
4-bed semi-detached, 3-storey	248.0	9.89	4.67	1,158	52.8%
Ground floor flat	532.8	8.63	4.37	2,328	49.4%
Mid floor flat	367.8	6.56	3.39	1,247	48.3%
Top floor flat	395.2	12.25	5.98	2,363	51.2%
Site Wide Be Green CO_2 emissions				**35,680**	
Site Wide Reduction below baseline				**51.0%**	

Table 6.1 Annual 'Be Green' Regulated CO_2 Emissions

7.0 Proposed Energy and LZC Technology Strategy

7.1 Recommended Strategy

An energy strategy for the proposed residential development site East of Mousdell Close, Ashington has been assessed in accordance with Horsham District Council Planning Framework policy based upon the energy hierarchy:

Be Lean: use less energy
Be Clean: supply energy efficiently
Be Green: use renewable energy

Following this approach has resulted in an energy efficient scheme that has minimised CO_2 emissions associated with the use of regulated energy through improvements to the thermal performance of the building envelope and high efficiency building services strategy. These measures have resulted in a reduction in annual CO_2 emissions of 47.7% below the Part L 2021 baseline.

Connection to a district heat network is not a viable option as there are no existing networks in close vicinity of the site and no known networks are being considered. The residential development type and site layout is not well suited to a potential connection in the future and so a 'network ready' energy strategy nis not deemed to be appropriate.

An LZC technology appraisal has been completed, which concludes that individual PV arrays to the plots where the Part L TPER is not met would be the most suitable option for inclusion. As such a total of 38.31 kWp PV has been calculated as required across the site, which would offer a further 3.3% reduction in CO_2 emissions below the 'Be Lean' assessment and a total of 51.0% overall reduction below the baseline emissions.

The PV requirement stated is the minimum that has been calculated at this stage to demonstrate compliance against both local policy and Approved Document Part L. In reality a single PV panel would not be appropriate for installation upon the roof of any given plot and so additional PV allocation has been shown upon the drawing submitted with the application. The figures provided in this report are there indicative only of the minimum performance of the site as a whole. The actual carbon reduction at the 'be green' stage will likely be lower than has been stated.

The results of the energy hierarchy analysis followed within this energy strategy are shown in table 7.1 and figure 7.1 below.

Measure	Site CO_2 Emissions (kg/yr)	CO_2 Reduction (kg/yr)	Reduction at each Stage (%)	Reduction from Baseline (%)
Part L 2021 Baseline	72,885			
Be Lean	38,115	34,770	47.7%	47.7%
Be Green (proposed design)	35,680	37,205	3.3%	51.0%

Table 7.1 Results of energy hierarchy analysis against Part L 2021 baseline

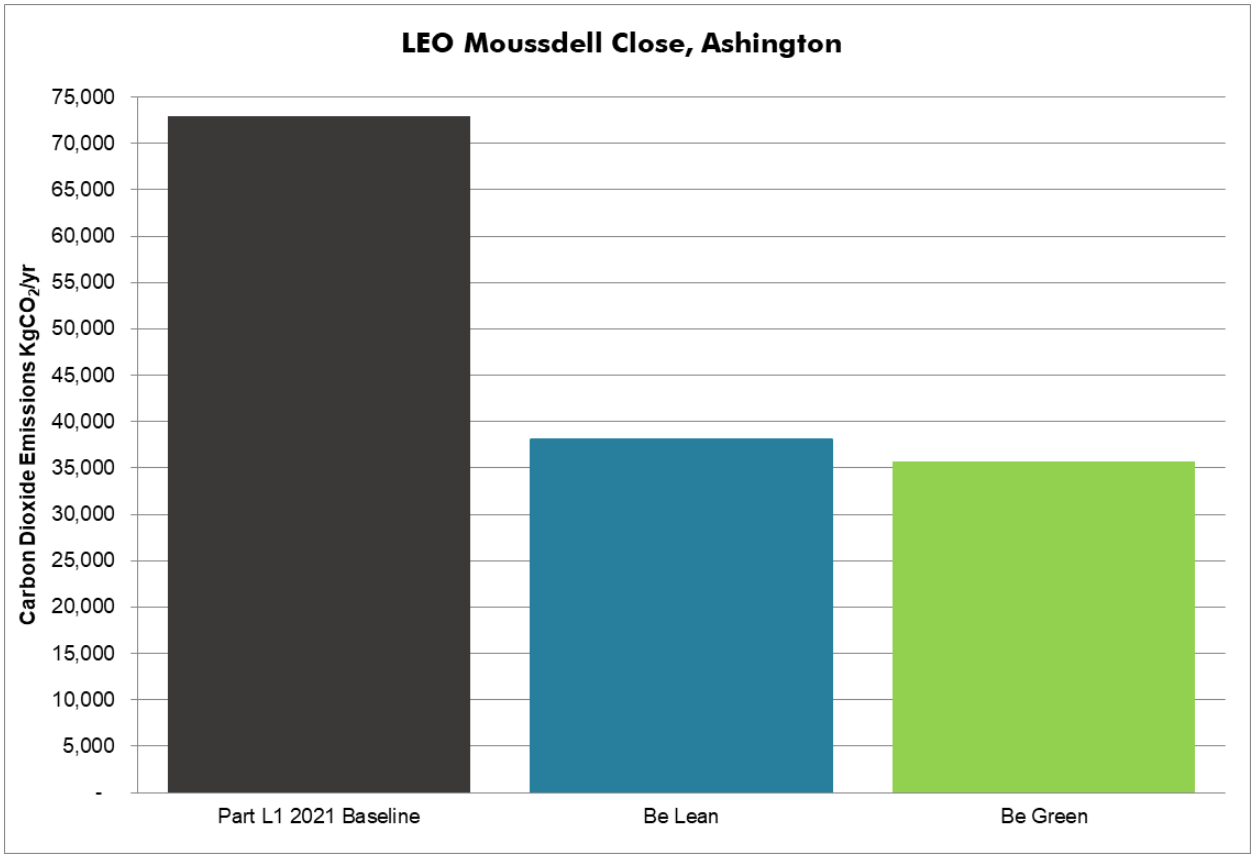


Figure 7.1 Graphical results of energy hierarchy analysis against Part L 2021 baseline

Appendix 1- SAP Reports

Summary for Input Data

elmhurst energy

Property Reference	HT-01 - Plot 39	**Issued on Date**	05/08/2025
Assessment Reference	Be Lean	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	76 C	**DER**	5.87	**TER**	11.50
Environmental	95 A	**% DER < TER**			48.96
CO_2 Emissions (t/year)	0.43	**DFEE**	35.43	**TFEE**	37.06
Compliance Check	See BREL	**% DFEE < TFEE**			4.41
% DPER < TPER	-2.90	**DPER**	61.81	**TPER**	60.07

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	House, Semi-Detached	
Which Floor	0	
2.0 Number of Storeys	2	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	17.86 m	39.74 m²	2.40 m
1st Storey:	17.86 m	39.74 m²	2.70 m

8.0 Living Area	17.28	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	91.09	77.41	0.00	None	13.68	Calculate Wall Area

9.1 Party Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Area (m²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Single plasterboard on dabs both sides, lightweight aggregate blocks, cavity or cavity fill	0.00	110.00	45.12	0.00	None

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
Insulated ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	39.74	39.74	None	0.00	Enter Gross Area	0.00

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	39.74

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)

Windows	Manufacturer	Window	Double glazed	0.50	0.70	1.40
Front door	Manufacturer	Solid Door		0.00		1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	External Wall 1	East	4.70	0
West	Windows	External Wall 1	West	5.83	0
South	Windows	External Wall 1	South	1.03	0
Front Door	Front door	External Wall 1	East	2.12	0

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)	Non Gov Approved Schemes	8.43	0.00	0.00	Yes
E3 Sill	Non Gov Approved Schemes	3.63	0.00	0.00	No
E4 Jamb	Non Gov Approved Schemes	23.70	0.00	0.00	Yes
E5 Ground floor (normal)	Non Gov Approved Schemes	17.86	0.00	0.00	Yes
E6 Intermediate floor within a dwelling	Non Gov Approved Schemes	17.86	0.00	0.00	Yes
E16 Corner (normal)	Non Gov Approved Schemes	10.20	0.00	0.00	Yes
E18 Party wall between dwellings	Non Gov Approved Schemes	10.20	0.00	0.00	Yes
E10 Eaves (insulation at ceiling level)		8.46	0.00	0.00	No
E12 Gable (insulation at ceiling level)		9.40	0.00	0.00	No
P2 Party wall - Intermediate floor within a dwelling		9.40	0.00	0.00	No
P1 Party wall - Ground floor		9.40	0.00	0.00	No
P4 Party wall - Roof (insulation at ceiling level)		9.40	0.00	0.00	No

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No	

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0	
Number of open flues	0	
Number of chimneys/flues attached to closed fire	0	
Number of flues attached to solid fuel boiler	0	
Number of flues attached to other heater	0	
Number of blocked chimneys	0	
Number of intermittent extract fans	2	
Number of passive vents	0	
Number of flueless gas fires	0	

21.0 Fixed Cooling System	No	

22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	

22.0 Lighting

No Fixed Lighting	No	

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	8

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	107681	
Fuel Type	Electricity	
SAP Code	0	
In Winter	227.36	

Summary for Input Data

In Summer	167.19
Model Name	EDLA04EV3 PPC
Manufacturer	Daikin Europe NV
System Type	Heat Pump
Controls SAP Code	2210
Delayed Start Stat	No
Burner Control	On/Off
HETAS approved System	No
Is MHS Pumped	Pump in heated space
Heating Pump Age	2013 or later
Heat Emitter	Radiators
Underfloor Heating	Yes - Pipes in thin screed
Flow Temperature	Enter value
Flow Temperature Value	55.00

25.0 Main Heating 2	None
26.0 Heat Networks	None
27.0 Secondary Heating	None

28.0 Water Heating

Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	No
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	No
Summer Immersion	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	
Cylinder Volume	150.00	L
Loss	1.10	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store	None
34.0 Small-scale Hydro	None

Summary for Input Data

Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

elmhurst energy

Property Reference	HT-02 - Plot 26	**Issued on Date**	05/08/2025
Assessment Reference	Be Lean	**Prop Type Ref**	2-bed semi
Property	HT-02 - Plot 26, Plot 26		

SAP Rating	76 C	**DER**	5.51	**TER**	10.60
Environmental	95 A	**% DER < TER**			48.02
CO_2 Emissions (t/year)	0.47	**DFEE**	34.54	**TFEE**	36.06
Compliance Check	See BREL	**% DFEE < TFEE**			4.21
% DPER < TPER	-4.85	**DPER**	57.99	**TPER**	55.31

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	House, Semi-Detached	
Which Floor	0	
2.0 Number of Storeys	2	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	19.32 m	46.61 m²	2.40 m
1st Storey:	19.32 m	46.61 m²	2.70 m

8.0 Living Area	16.50	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	98.53	83.54	0.00	None	14.99	Calculate Wall Area

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
Insulated ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	46.61	46.61	None	0.00	Enter Gross Area	0.00

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	46.61

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	External Wall 1	East	4.38	0

West	Windows	External Wall 1	West	7.46	0
South	Windows	External Wall 1	South	1.03	0
Front Door	Front door	External Wall 1	East	2.12	0

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)		10.57	0.00	0.00	Yes
E3 Sill		9.56	0.00	0.00	Yes
E4 Jamb		26.70	0.00	0.00	Yes
E5 Ground floor (normal)		19.32	0.00	0.00	Yes
E6 Intermediate floor within a dwelling		19.32	0.00	0.00	Yes
E16 Corner (normal)		10.20	0.00	0.00	Yes
E18 Party wall between dwellings		10.20	0.00	0.00	Yes
E10 Eaves (insulation at ceiling level)		9.92	0.00	0.00	No
E12 Gable (insulation at ceiling level)		9.40	0.00	0.00	No
P1 Party wall - Ground floor		9.92	0.00	0.00	No
P2 Party wall - Intermediate floor within a dwelling		9.92	0.00	0.00	No
P4 Party wall - Roof (insulation at ceiling level)		9.92	0.00	0.00	No

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No	

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0	
Number of open flues	0	
Number of chimneys/flues attached to closed fire	0	
Number of flues attached to solid fuel boiler	0	
Number of flues attached to other heater	0	
Number of blocked chimneys	0	
Number of intermittent extract fans	2	
Number of passive vents	0	
Number of flueless gas fires	0	

21.0 Fixed Cooling System	No	

22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	

22.0 Lighting

No Fixed Lighting	No

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	8

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	107681	
Fuel Type	Electricity	
SAP Code	0	
In Winter	226.40	
In Summer	166.66	
Model Name	EDLA04EV3 PPC	
Manufacturer	Daikin Europe NV	

Summary for Input Data

System Type	Heat Pump
Controls SAP Code	2210
Delayed Start Stat	No
Burner Control	On/Off
HETAS approved System	No
Is MHS Pumped	Pump in heated space
Heating Pump Age	2013 or later
Heat Emitter	Radiators
Underfloor Heating	Yes - Pipes in thin screed
Flow Temperature	Enter value
Flow Temperature Value	55.00

25.0 Main Heating 2	None
26.0 Heat Networks	None
27.0 Secondary Heating	None

28.0 Water Heating

Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	No
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	No
Summer Immersion	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	
Cylinder Volume	180.00	L
Loss	1.20	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	
31.0 Thermal Store	None	
34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	

Summary for Input Data

Electricity Generation	Annual

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

elmhurst energy

Property Reference	HT-03 (SD) - Plot 19	**Issued on Date**	05/08/2025
Assessment Reference	Be Lean	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	77 C	**DER**	5.06	**TER**	10.50
Environmental	95 A	**% DER < TER**			51.81
CO_2 Emissions (t/year)	0.49	**DFEE**	33.05	**TFEE**	34.62
Compliance Check	See BREL	**% DFEE < TFEE**			4.52
% DPER < TPER	3.03	**DPER**	53.19	**TPER**	54.85

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	North	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	House, Semi-Detached	
Which Floor	0	
2.0 Number of Storeys	3	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	17.86 m	39.74 m²	2.40 m
1st Storey:	17.86 m	39.74 m²	2.70 m
2nd Storey:	16.43 m	26.90 m²	2.55 m

8.0 Living Area	17.20	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
Main wall	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	106.49	91.19	0.00	None	15.30	Enter Gross Area
Dormer walls	Timber Frame	Timber framed wall (one layer of plasterboard)	0.18	9.00	4.32	2.71	0.00	None	1.61	Enter Gross Area
Dwarf walls	Timber Frame	Timber framed wall (one layer of plasterboard)	0.13	9.00	12.78	12.78	0.00	None	0.00	Enter Gross Area

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
Insulated ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	16.54	16.54	None	0.00	Enter Gross Area	0.00
Dormer roof	External Flat Roof	Plasterboard, insulated flat roof	0.12	9.00	1.29	1.29	None	0.00	Enter Gross Area	0.00
Pitched Roof	External Slope Roof	Plasterboard, insulated slope	0.12	9.00	7.62	6.96	None	0.00	Enter Gross Area	0.66

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	39.74

12.0 Opening Types

Summary for Input Data

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40
Roof window	Manufacturer	Roof Window	Double glazed			0.50		0.70	1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
North	Windows	Main wall	North	4.71	0
South	Windows	Main wall	South	7.45	0
West	Windows	Main wall	West	1.03	0
Front Door	Front door	Main wall	North	2.12	0
North Dormer	Windows	Dormer walls	North	1.61	0
South roof window	Roof window	Pitched Roof	South	0.66	0

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)		11.12	0.00	0.00	Yes
E3 Sill		5.83	0.00	0.00	No
E4 Jamb		28.50	0.00	0.00	Yes
E5 Ground floor (normal)		17.86	0.00	0.00	Yes
E6 Intermediate floor within a dwelling		17.86	0.00	0.00	Yes
E16 Corner (normal)		13.80	0.00	0.00	No
E18 Party wall between dwellings		13.80	0.00	0.00	No
R1 Head of roof window		0.60	0.00	0.00	Yes
R2 Sill of roof window		0.60	0.00	0.00	Yes
R3 Jamb of roof window		2.20	0.00	0.00	Yes
E12 Gable (insulation at ceiling level)		3.91	0.00	0.00	No
E13 Gable (insulation at rafter level)		2.14	0.00	0.00	No
P1 Party wall - Ground floor		9.40	0.00	0.00	No
P2 Party wall - Intermediate floor within a dwelling		15.46	0.00	0.00	No
P4 Party wall - Roof (insulation at ceiling level)		6.06	0.00	0.00	No
R6 Flat ceiling		8.46	0.00	0.00	No
R7 Flat ceiling (inverted)		1.34	0.00	0.00	No
R8 Roof to wall (rafter)		7.12	0.00	0.00	No
R9 Roof to wall (flat ceiling)		3.26	0.00	0.00	No

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No	

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0	
Number of open flues	0	
Number of chimneys/flues attached to closed fire	0	
Number of flues attached to solid fuel boiler	0	
Number of flues attached to other heater	0	
Number of blocked chimneys	0	
Number of intermittent extract fans	2	
Number of passive vents	0	
Number of flueless gas fires	0	

21.0 Fixed Cooling System	No	
22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	

22.0 Lighting

No Fixed Lighting	No	

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	8

Summary for Input Data

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	107681	
Fuel Type	Electricity	
SAP Code	0	
In Winter	227.45	
In Summer	166.81	
Model Name	EDLA04EV3 PPC	
Manufacturer	Daikin Europe NV	
System Type	Heat Pump	
Controls SAP Code	2210	
Delayed Start Stat	No	
Burner Control	On/Off	
HETAS approved System	No	
Is MHS Pumped	Pump in heated space	
Heating Pump Age	2013 or later	
Heat Emitter	Radiators	
Underfloor Heating	Yes - Pipes in thin screed	
Flow Temperature	Enter value	
Flow Temperature Value	55.00	
25.0 Main Heating 2	None	
26.0 Heat Networks	None	
27.0 Secondary Heating	None	
28.0 Water Heating		
Water Heating	Main Heating 1	
SAP Code	901	
Flue Gas Heat Recovery System	No	
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	No	
Summer Immersion	No	
Cold Water Source	From mains	
Bath Count	1	
Supplementary Immersion	No	
Immersion Only Heating Hot Water	No	

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	

Summary for Input Data

Cylinder Volume	180.00	L
Loss	1.20	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	
31.0 Thermal Store	None	
34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

elmhurst energy

Property Reference	HT-03 (MT) - Plot 51	**Issued on Date**	05/08/2025
Assessment Reference	Be Lean	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	79 C	**DER**	4.74	**TER**	9.59
Environmental	96 A	**% DER < TER**			50.57
CO_2 Emissions (t/year)	0.46	**DFEE**	28.23	**TFEE**	30.63
Compliance Check	See BREL	**% DFEE < TFEE**			7.85
% DPER < TPER	0.06	**DPER**	49.93	**TPER**	49.96

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	House, Mid-Terrace	
Which Floor	0	
2.0 Number of Storeys	3	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	2	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	8.46 m	39.74 m²	2.40 m
1st Storey:	8.46 m	39.74 m²	2.70 m
2nd Storey:	10.30 m	26.90 m²	2.55 m

8.0 Living Area	17.20	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
Main wall	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	43.15	28.88	0.00	None	14.27	Enter Gross Area
Dormer walls	Timber Frame	Timber framed wall (one layer of plasterboard)	0.18	9.00	4.32	2.71	0.00	None	1.61	Enter Gross Area
Dwarf walls	Timber Frame	Timber framed wall (one layer of plasterboard)	0.13	9.00	12.78	12.78	0.00	None	0.00	Enter Gross Area
Wall to adjacent loft	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	15.40	15.40	0.50	Room In Roof	0.00	Enter Gross Area

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
Insulated ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	16.54	16.54	None	0.00	Enter Gross Area	0.00
Dormer roof	External Flat Roof	Plasterboard, insulated flat roof	0.12	9.00	1.29	1.29	None	0.00	Enter Gross Area	0.00
Pitched Roof	External Slope Roof	Plasterboard, insulated slope	0.12	9.00	7.62	6.96	None	0.00	Enter Gross Area	0.66

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	39.74

Summary for Input Data

elmhurst energy

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40
Roof window	Manufacturer	Roof Window	Double glazed			0.50		0.70	1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	Main wall	East	4.71	0
West	Windows	Main wall	West	7.45	0
Front Door	Front door	Main wall	East	2.12	0
East Dormer	Windows	Dormer walls	East	1.61	0
West roof window	Roof window	Pitched Roof	West	0.66	0

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)		11.12	0.00	0.00	Yes
E3 Sill		5.83	0.00	0.00	No
E4 Jamb		28.50	0.00	0.00	Yes
E5 Ground floor (normal)		8.46	0.00	0.00	No
E6 Intermediate floor within a dwelling		18.83	0.00	0.00	No
E16 Corner (normal)		3.60	0.00	0.00	No
E18 Party wall between dwellings		24.00	0.00	0.00	No
R1 Head of roof window		0.60	0.00	0.00	Yes
R2 Sill of roof window		0.60	0.00	0.00	Yes
R3 Jamb of roof window		2.20	0.00	0.00	Yes
E12 Gable (insulation at ceiling level)		3.91	0.00	0.00	No
E13 Gable (insulation at rafter level)		2.14	0.00	0.00	No
P1 Party wall - Ground floor		18.80	0.00	0.00	No
P2 Party wall - Intermediate floor within a dwelling		30.92	0.00	0.00	No
P4 Party wall - Roof (insulation at ceiling level)		12.12	0.00	0.00	No
R6 Flat ceiling		8.46	0.00	0.00	No
R7 Flat ceiling (inverted)		1.34	0.00	0.00	No
R8 Roof to wall (rafter)		7.12	0.00	0.00	No
R9 Roof to wall (flat ceiling)		3.26	0.00	0.00	No

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0
Number of open flues	0
Number of chimneys/flues attached to closed fire	0
Number of flues attached to solid fuel boiler	0
Number of flues attached to other heater	0
Number of blocked chimneys	0
Number of intermittent extract fans	2
Number of passive vents	0
Number of flueless gas fires	0

21.0 Fixed Cooling System	No	
22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	

22.0 Lighting

No Fixed Lighting	No

Name	Efficacy	Power	Capacity	Count

Summary for Input Data

	Lighting 1	85.00	8.00	680.00	8

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	107681	
Fuel Type	Electricity	
SAP Code	0	
In Winter	226.11	
In Summer	166.62	
Model Name	EDLA04EV3 PPC	
Manufacturer	Daikin Europe NV	
System Type	Heat Pump	
Controls SAP Code	2210	
Delayed Start Stat	No	
Burner Control	On/Off	
HETAS approved System	No	
Is MHS Pumped	Pump in heated space	
Heating Pump Age	2013 or later	
Heat Emitter	Radiators	
Underfloor Heating	Yes - Pipes in thin screed	
Flow Temperature	Enter value	
Flow Temperature Value	55.00	
25.0 Main Heating 2	None	
26.0 Heat Networks	None	
27.0 Secondary Heating	None	
28.0 Water Heating		
Water Heating	Main Heating 1	
SAP Code	901	
Flue Gas Heat Recovery System	No	
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	No	
Summer Immersion	No	
Cold Water Source	From mains	
Bath Count	1	
Supplementary Immersion	No	
Immersion Only Heating Hot Water	No	

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	

Summary for Input Data

Cylinder Volume	180.00	L
Loss	1.20	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	
31.0 Thermal Store	None	
34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

Property Reference	HT-05 - Plot 34	**Issued on Date**	05/08/2025
Assessment Reference	Be Lean	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	75 C	**DER**	5.39	**TER**	10.86
Environmental	95 A	**% DER < TER**			50.37
CO_2 Emissions (t/year)	0.56	**DFEE**	40.91	**TFEE**	41.52
Compliance Check	See BREL	**% DFEE < TFEE**			1.45
% DPER < TPER	0.57	**DPER**	56.46	**TPER**	56.79

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	House, Detached	
Which Floor	0	
2.0 Number of Storeys	2	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	0	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	31.27 m	56.97 m²	2.40 m
1st Storey:	31.27 m	56.97 m²	2.70 m

8.0 Living Area	27.30	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	159.48	140.87	0.00	None	18.61	Calculate Wall Area

9.2 Internal Walls

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Wall 1	Plasterboard on timber frame	9.00	133.10

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
Insulated ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	56.97	56.97	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings

Description	Storey	Construction	Area (m²)
Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor	39.74

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	56.97

Summary for Input Data

elmhurst energy

11.2 Internal Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	18.00	39.74

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	External Wall 1	East	5.09	0
West	Windows	External Wall 1	West	8.05	0
South	Windows	External Wall 1	South	2.32	0
Front Door	Front door	External Wall 1	East	2.12	0
North	Windows	External Wall 1	North	1.03	0

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
E10 Eaves (insulation at ceiling level)		11.58	0.00	0.00	No
E12 Gable (insulation at ceiling level)		19.70	0.00	0.00	No
E2 Other lintels (including other steel lintels)		12.90	0.00	0.00	Yes
E3 Sill		8.09	0.00	0.00	No
E4 Jamb		29.10	0.00	0.00	Yes
E5 Ground floor (normal)		31.27	0.00	0.00	Yes
E6 Intermediate floor within a dwelling		31.27	0.00	0.00	Yes
E16 Corner (normal)		20.40	0.00	0.00	Yes

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No	

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0	
Number of open flues	0	
Number of chimneys/flues attached to closed fire	0	
Number of flues attached to solid fuel boiler	0	
Number of flues attached to other heater	0	
Number of blocked chimneys	0	
Number of intermittent extract fans	2	
Number of passive vents	0	
Number of flueless gas fires	0	

21.0 Fixed Cooling System	No	

22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	

22.0 Lighting

No Fixed Lighting	No	

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	8

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	107681	

Summary for Input Data

Fuel Type	Electricity
SAP Code	0
In Winter	232.01
In Summer	166.99
Model Name	EDLA04EV3 PPC
Manufacturer	Daikin Europe NV
System Type	Heat Pump
Controls SAP Code	2210
Delayed Start Stat	No
Burner Control	On/Off
HETAS approved System	No
Is MHS Pumped	Pump in heated space
Heating Pump Age	2013 or later
Heat Emitter	Radiators
Underfloor Heating	Yes - Pipes in thin screed
Flow Temperature	Enter value
Flow Temperature Value	55.00

25.0 Main Heating 2 — None

26.0 Heat Networks — None

27.0 Secondary Heating — None

28.0 Water Heating

Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	No
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	No
Summer Immersion	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder — Hot Water Cylinder

Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	
Cylinder Volume	180.00	L
Loss	1.20	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

Summary for Input Data

31.0 Thermal Store	None	
34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

elmhurst energy

Property Reference	HT-07 - Plot 29	**Issued on Date**	05/08/2025
Assessment Reference	Be Lean	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	78 C	**DER**	4.67	**TER**	9.89
Environmental	96 A	**% DER < TER**			52.78
CO_2 Emissions (t/year)	0.53	**DFEE**	32.44	**TFEE**	34.97
Compliance Check	See BREL	**% DFEE < TFEE**			7.24
% DPER < TPER	4.96	**DPER**	49.07	**TPER**	51.63

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	South	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	House, Semi-Detached	
Which Floor	0	
2.0 Number of Storeys	3	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	19.32 m	46.61 m²	2.40 m
1st Storey:	19.32 m	46.61 m²	2.70 m
2nd Storey:	17.46 m	31.04 m²	2.57 m

8.0 Living Area	20.40	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
Main wall	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	113.94	97.60	0.00	None	16.34	Enter Gross Area
Dormer walls	Timber Frame	Timber framed wall (one layer of plasterboard)	0.18	9.00	4.32	2.71	0.00	None	1.61	Enter Gross Area
Dwarf walls	Timber Frame	Timber framed wall (one layer of plasterboard)	0.13	9.00	15.44	15.44	0.00	None	0.00	Enter Gross Area

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
Insulated ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	16.54	16.54	None	0.00	Enter Gross Area	0.00
Dormer roof	External Flat Roof	Plasterboard, insulated flat roof	0.12	9.00	1.29	1.29	None	0.00	Enter Gross Area	0.00
Pitched Roof	External Slope Roof	Plasterboard, insulated slope	0.12	9.00	7.62	6.96	None	0.00	Enter Gross Area	0.66

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	39.74

12.0 Opening Types

Summary for Input Data

elmhurst energy

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40
Roof window	Manufacturer	Roof Window	Double glazed			0.50		0.70	1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
South	Windows	Main wall	South	5.15	0
North	Windows	Main wall	North	8.05	0
West	Windows	Main wall	East	1.03	0
Front Door	Front door	Main wall	South	2.12	0
South Dormer	Windows	Dormer walls	South	1.61	0
North roof window	Roof window	Pitched Roof	North	0.66	0

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
E16 Corner (normal)		13.80	0.00	0.00	No
E18 Party wall between dwellings		13.80	0.00	0.00	No
E12 Gable (insulation at ceiling level)		3.91	0.00	0.00	No
E13 Gable (insulation at rafter level)		2.14	0.00	0.00	No
P1 Party wall - Ground floor		9.40	0.00	0.00	No
P2 Party wall - Intermediate floor within a dwelling		15.46	0.00	0.00	No
P4 Party wall - Roof (insulation at ceiling level)		6.06	0.00	0.00	No
E2 Other lintels (including other steel lintels)		12.04	0.00	0.00	Yes
E3 Sill		6.96	0.00	0.00	No
E4 Jamb		30.90	0.00	0.00	Yes
E5 Ground floor (normal)		19.32	0.00	0.00	Yes
E6 Intermediate floor within a dwelling		36.78	0.00	0.00	Yes
E16 Corner (normal)		15.34	0.00	0.00	Yes
E18 Party wall between dwellings		13.80	0.00	0.00	No
R1 Head of roof window		0.60	0.00	0.00	Yes
R2 Sill of roof window		0.60	0.00	0.00	Yes
R3 Jamb of roof window		2.20	0.00	0.00	Yes
R6 Flat ceiling		9.92	0.00	0.00	No
R7 Flat ceiling (inverted)		1.34	0.00	0.00	No
R8 Roof to wall (rafter)		8.58	0.00	0.00	No
R9 Roof to wall (flat ceiling)		3.26	0.00	0.00	No

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No	

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0	
Number of open flues	0	
Number of chimneys/flues attached to closed fire	0	
Number of flues attached to solid fuel boiler	0	
Number of flues attached to other heater	0	
Number of blocked chimneys	0	
Number of intermittent extract fans	2	
Number of passive vents	0	
Number of flueless gas fires	0	

21.0 Fixed Cooling System	No	

22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	

22.0 Lighting

No Fixed Lighting	No	

Summary for Input Data

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	8

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	107681	
Fuel Type	Electricity	
SAP Code	0	
In Winter	229.35	
In Summer	166.94	
Model Name	EDLA04EV3 PPC	
Manufacturer	Daikin Europe NV	
System Type	Heat Pump	
Controls SAP Code	2210	
Delayed Start Stat	No	
Burner Control	On/Off	
HETAS approved System	No	
Is MHS Pumped	Pump in heated space	
Heating Pump Age	2013 or later	
Heat Emitter	Radiators	
Underfloor Heating	Yes - Pipes in thin screed	
Flow Temperature	Enter value	
Flow Temperature Value	55.00	
25.0 Main Heating 2	None	
26.0 Heat Networks	None	
27.0 Secondary Heating	None	
28.0 Water Heating		
Water Heating	Main Heating 1	
SAP Code	901	
Flue Gas Heat Recovery System	No	
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	No	
Summer Immersion	No	
Cold Water Source	From mains	
Bath Count	1	
Supplementary Immersion	No	
Immersion Only Heating Hot Water	No	

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	

Summary for Input Data

Insulation Type	Measured Loss	
Cylinder Volume	180.00	L
Loss	1.20	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	
31.0 Thermal Store	None	
34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

Property Reference	GF Flat - Plot 67	**Issued on Date**	05/08/2025
Assessment Reference	Be Lean	**Prop Type Ref**	2-bed semi
Property	GF Flat - Plot 67, Plot 67		

SAP Rating	78 C	**DER**	5.96	**TER**	8.63
Environmental	96 A	**% DER < TER**			30.94
CO_2 Emissions (t/year)	0.34	**DFEE**	27.80	**TFEE**	32.28
Compliance Check	See BREL	**% DFEE < TFEE**			13.86
% DPER < TPER	-36.88	**DPER**	63.17	**TPER**	46.15

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	Flat, End-Terrace	
Position of Flat	Ground-floor flat	
Which Floor	1	
2.0 Number of Storeys	1	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	23.88 m	61.30 m²	2.40 m
1st Storey:	17.86 m	39.74 m²	2.70 m

8.0 Living Area	24.10	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	57.31	50.00	0.00	None	7.31	Calculate Wall Area

10.1 Party Ceilings

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	61.30

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	61.30

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	External Wall 1	East	3.98	0

West	Windows	External Wall 1	West	2.65	0
South	Windows	External Wall 1	South	0.68	0

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
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)		10.00	0.00	0.00	No
P1 Party wall - Ground floor		10.00	0.00	0.00	No
E2 Other lintels (including other steel lintels)		4.48	0.00	0.00	Yes
E3 Sill		2.68	0.00	0.00	No
E4 Jamb		11.80	0.00	0.00	Yes
E5 Ground floor (normal)		23.88	0.00	0.00	Yes
E16 Corner (normal)		9.60	0.00	0.00	No
E18 Party wall between dwellings		2.40	0.00	0.00	No
E9 Balcony between dwellings, wall insulation continuous		2.46	0.00	0.00	No
E7 Party floor between dwellings (in blocks of flats)		21.42	0.00	0.00	No
E17 Corner (inverted – internal area greater than external area)		2.40	0.00	0.00	No
E25 Staggered party wall between dwellings		2.40	0.00	0.00	No

Y-value 0.02 W/m²K

Description Notional

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present No

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys 0

Number of open flues 0

Number of chimneys/flues attached to closed fire 0

Number of flues attached to solid fuel boiler 0

Number of flues attached to other heater 0

Number of blocked chimneys 0

Number of intermittent extract fans 2

Number of passive vents 0

Number of flueless gas fires 0

21.0 Fixed Cooling System No

22.0 Pressure Testing Yes

Designed AP_{50} 4.00 m³/(h.m²) @ 50 Pa

Property Tested? Yes

Test Method Blower Door

22.0 Lighting

No Fixed Lighting No

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	5

24.0 Main Heating 1 Database

Percentage of Heat 100.00 %

Database Ref. No. 107681

Fuel Type Electricity

SAP Code 0

In Winter 229.40

In Summer 170.21

Model Name EDLA04EV3 PPC

Summary for Input Data

Manufacturer	Daikin Europe NV
System Type	Heat Pump
Controls SAP Code	2210
Delayed Start Stat	No
Burner Control	On/Off
HETAS approved System	No
Is MHS Pumped	Pump in heated space
Heating Pump Age	2013 or later
Heat Emitter	Radiators
Underfloor Heating	Yes - Pipes in thin screed
Flow Temperature	Enter value
Flow Temperature Value	55.00

25.0 Main Heating 2 — None

26.0 Heat Networks — None

27.0 Secondary Heating — None

28.0 Water Heating

Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	No
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	No
Summer Immersion	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder — Hot Water Cylinder

Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	
Cylinder Volume	150.00	L
Loss	1.10	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store — None

34.0 Small-scale Hydro — None

Electricity Generated	0.00	
Apportioned	0.00	kWh/Year

Summary for Input Data

Connected to dwelling's electricity meter	Yes
Electricity Generation	Annual

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

Property Reference	MF Flat - Plot 70	**Issued on Date**	05/08/2025
Assessment Reference	Be Lean	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	79 C	**DER**	5.46	**TER**	6.56
Environmental	96 A	**% DER < TER**			16.77
CO_2 Emissions (t/year)	0.31	**DFEE**	20.14	**TFEE**	22.57
Compliance Check	See BREL	**% DFEE < TFEE**			10.77
% DPER < TPER	-65.44	**DPER**	57.99	**TPER**	35.05

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	Flat, End-Terrace	
Position of Flat	Mid-floor flat	
Which Floor	1	
2.0 Number of Storeys	1	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	23.88 m	61.30 m²	2.40 m
1st Storey:	17.86 m	39.74 m²	2.70 m

8.0 Living Area	24.10	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	57.31	50.00	0.00	None	7.31	Calculate Wall Area

10.1 Party Ceilings

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	61.30

11.1 Party Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Party Floor 1	Lowest occupied	Precast concrete planks floor, screed, carpeted	40.00	61.30

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40

13.0 Openings

Summary for Input Data

elmhurst energy

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	External Wall 1	East	3.98	0
West	Windows	External Wall 1	West	2.65	0
South	Windows	External Wall 1	South	0.68	0

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
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)		20.00	0.00	0.00	No
E2 Other lintels (including other steel lintels)		4.48	0.00	0.00	Yes
E3 Sill		2.68	0.00	0.00	No
E4 Jamb		11.80	0.00	0.00	Yes
E16 Corner (normal)		9.60	0.00	0.00	No
E18 Party wall between dwellings		2.40	0.00	0.00	No
E9 Balcony between dwellings, wall insulation continuous		4.92	0.00	0.00	No
E7 Party floor between dwellings (in blocks of flats)		42.84	0.00	0.00	No
E17 Corner (inverted – internal area greater than external area)		2.40	0.00	0.00	No
E25 Staggered party wall between dwellings		2.40	0.00	0.00	No

Y-value 0.02 W/m²K

Description Notional

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present No

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys 0

Number of open flues 0

Number of chimneys/flues attached to closed fire 0

Number of flues attached to solid fuel boiler 0

Number of flues attached to other heater 0

Number of blocked chimneys 0

Number of intermittent extract fans 2

Number of passive vents 0

Number of flueless gas fires 0

21.0 Fixed Cooling System No

22.0 Pressure Testing Yes

Designed AP_{50} 4.00 m³/(h.m²) @ 50 Pa

Property Tested? Yes

Test Method Blower Door

22.0 Lighting

No Fixed Lighting No

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	5

24.0 Main Heating 1 Database

Percentage of Heat 100.00 %

Database Ref. No. 107681

Fuel Type Electricity

SAP Code 0

In Winter 226.63

In Summer 170.69

Model Name EDLA04EV3 PPC

Summary for Input Data

Manufacturer	Daikin Europe NV
System Type	Heat Pump
Controls SAP Code	2210
Delayed Start Stat	No
Burner Control	On/Off
HETAS approved System	No
Is MHS Pumped	Pump in heated space
Heating Pump Age	2013 or later
Heat Emitter	Radiators
Underfloor Heating	Yes - Pipes in thin screed
Flow Temperature	Enter value
Flow Temperature Value	55.00

25.0 Main Heating 2 — None

26.0 Heat Networks — None

27.0 Secondary Heating — None

28.0 Water Heating

Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	No
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	No
Summer Immersion	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder — Hot Water Cylinder

Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	
Cylinder Volume	150.00	L
Loss	1.10	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store — None

34.0 Small-scale Hydro — None

Electricity Generated	0.00	
Apportioned	0.00	kWh/Year

Summary for Input Data

Connected to dwelling's electricity meter	Yes
Electricity Generation	Annual

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

elmhurst energy

Property Reference	TF Flat - Plot 73	**Issued on Date**	05/08/2025
Assessment Reference	Be Lean	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	78 C	**DER**	5.98	**TER**	12.25
Environmental	95 A	**% DER < TER**			51.18
CO_2 Emissions (t/year)	0.34	**DFEE**	28.25	**TFEE**	29.58
Compliance Check	See BREL	**% DFEE < TFEE**			4.50
% DPER < TPER	2.00	**DPER**	63.33	**TPER**	64.63

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	Flat, End-Terrace	
Position of Flat	Top-floor flat	
Which Floor	3	
2.0 Number of Storeys	1	
3.0 Date Built	2025	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	23.88 m	61.30 m²	2.40 m

8.0 Living Area 24.10 m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18		57.31	50.00	0.00	None	7.31	Calculate Wall Area

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
External Roof 1	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	48.43	47.77	None	0.00	Enter Gross Area	0.66
Pitched roof	External Slope Roof	Plasterboard, insulated slope	0.12	9.00	14.17	14.17	None	0.00	Enter Gross Area	0.00

10.1 Party Ceilings

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	61.30

11.1 Party Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Party Floor 1	Lowest occupied	Precast concrete planks floor, screed, carpeted	40.00	61.30

12.0 Opening Types

Summary for Input Data

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40
Roof window	Manufacturer	Roof Window	Double glazed			0.50		0.70	1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	External Wall 1	East	3.98	
West	Windows	External Wall 1	West	2.65	
South	Windows	External Wall 1	South	0.68	
South roof window	Roof window	External Roof 1	South	0.66	0

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
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)		10.00			No
E16 Corner (normal)		9.60			No
E18 Party wall between dwellings		2.40			No
E9 Balcony between dwellings, wall insulation continuous		2.46			No
E7 Party floor between dwellings (in blocks of flats)		21.42			No
E17 Corner (inverted – internal area greater than external area)		2.40			No
E25 Staggered party wall between dwellings		2.40			No
P4 Party wall - Roof (insulation at ceiling level)		10.00			No
E2 Other lintels (including other steel lintels)		4.48			Yes
E3 Sill		4.48			Yes
E4 Jamb		11.80			Yes
R1 Head of roof window		0.60			Yes
R2 Sill of roof window		0.60			Yes
R3 Jamb of roof window		2.20			Yes
R6 Flat ceiling		11.97			No

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0
Number of open flues	0
Number of chimneys/flues attached to closed fire	0
Number of flues attached to solid fuel boiler	0
Number of flues attached to other heater	0
Number of blocked chimneys	0
Number of intermittent extract fans	2
Number of passive vents	0
Number of flueless gas fires	0

21.0 Fixed Cooling System	No	
22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Test Method	Blower Door	

22.0 Lighting

No Fixed Lighting	No				
	Name	**Efficacy**	**Power**	**Capacity**	**Count**
	Lighting 1	85.00	8.00	680.00	5

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%

Summary for Input Data

Database Ref. No.	107681
Fuel Type	Electricity
In Winter	229.48
In Summer	170.08
Model Name	EDLA04EV3 PPC
Manufacturer	Daikin Europe NV
System Type	Heat Pump
Controls SAP Code	2210
Is MHS Pumped	Pump in heated space
Heating Pump Age	2013 or later
Heat Emitter	Radiators
Flow Temperature	Enter value
Flow Temperature Value	55.00

25.0 Main Heating 2 None

26.0 Heat Networks None

27.0 Secondary Heating None

28.0 Water Heating

Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	No
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	No
Cold Water Source	From mains
Bath Count	1
Immersion Only Heating Hot Water	No

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	
Cylinder Volume	150.00	L
Loss	1.10	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store None

34.0 Small-scale Hydro None

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

Recommendations

Lower cost measures

None

Summary for Input Data

Further measures to achieve even higher standards

	Typical Cost	Typical savings per year	Ratings after improvement	
			SAP rating	Environmental Impact
			0	0
			0	0
			0	0

Summary for Input Data

elmhurst energy

Property Reference	HT-01 - Plot 39	**Issued on Date**	05/08/2025
Assessment Reference	Be Green	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	78 C	**DER**	5.50	**TER**	11.50
Environmental	95 A	**% DER < TER**			52.17
CO_2 Emissions (t/year)	0.39	**DFEE**	35.43	**TFEE**	37.06
Compliance Check	See BREL	**% DFEE < TFEE**			4.41
% DPER < TPER	3.95	**DPER**	57.70	**TPER**	60.07

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	House, Semi-Detached	
Which Floor	0	
2.0 Number of Storeys	2	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	17.86 m	39.74 m²	2.40 m
1st Storey:	17.86 m	39.74 m²	2.70 m

8.0 Living Area	17.28	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	91.09	77.41	0.00	None	13.68	Calculate Wall Area

9.1 Party Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Area (m²)	Shelter Res	Shelter
Party Wall 1	Filled Cavity with Edge Sealing	Single plasterboard on dabs both sides, lightweight aggregate blocks, cavity or cavity fill	0.00	110.00	45.12	0.00	None

9.2 Internal Walls

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Wall 1	Plasterboard on timber frame	9.00	133.10

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
Insulated ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	39.74	39.74	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings

Description	Storey	Construction	Area (m²)

Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor		39.74

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	39.74

11.2 Internal Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	18.00	39.74

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	External Wall 1	East	4.70	0
West	Windows	External Wall 1	West	5.83	0
South	Windows	External Wall 1	South	1.03	0
Front Door	Front door	External Wall 1	East	2.12	0

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)	Non Gov Approved Schemes	8.43	0.00	0.00	Yes
E3 Sill	Non Gov Approved Schemes	3.63	0.00	0.00	No
E4 Jamb	Non Gov Approved Schemes	23.70	0.00	0.00	Yes
E5 Ground floor (normal)	Non Gov Approved Schemes	17.86	0.00	0.00	Yes
E6 Intermediate floor within a dwelling	Non Gov Approved Schemes	17.86	0.00	0.00	Yes
E16 Corner (normal)	Non Gov Approved Schemes	10.20	0.00	0.00	Yes
E18 Party wall between dwellings	Non Gov Approved Schemes	10.20	0.00	0.00	Yes
E10 Eaves (insulation at ceiling level)		8.46	0.00	0.00	No
E12 Gable (insulation at ceiling level)		9.40	0.00	0.00	No
P2 Party wall - Intermediate floor within a dwelling		9.40	0.00	0.00	No
P1 Party wall - Ground floor		9.40	0.00	0.00	No
P4 Party wall - Roof (insulation at ceiling level)		9.40	0.00	0.00	No

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0
Number of open flues	0
Number of chimneys/flues attached to closed fire	0
Number of flues attached to solid fuel boiler	0
Number of flues attached to other heater	0
Number of blocked chimneys	0
Number of intermittent extract fans	2
Number of passive vents	0
Number of flueless gas fires	0

21.0 Fixed Cooling System	No	
22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	

22.0 Lighting

Summary for Input Data

elmhurst energy

No Fixed Lighting	No				
	Name	**Efficacy**	**Power**	**Capacity**	**Count**
	Lighting 1	85.00	8.00	680.00	8

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	107681	
Fuel Type	Electricity	
SAP Code	0	
In Winter	227.36	
In Summer	167.19	
Model Name	EDLA04EV3 PPC	
Manufacturer	Daikin Europe NV	
System Type	Heat Pump	
Controls SAP Code	2210	
Delayed Start Stat	No	
Burner Control	On/Off	
HETAS approved System	No	
Is MHS Pumped	Pump in heated space	
Heating Pump Age	2013 or later	
Heat Emitter	Radiators	
Underfloor Heating	Yes - Pipes in thin screed	
Flow Temperature	Enter value	
Flow Temperature Value	55.00	
25.0 Main Heating 2	None	
26.0 Heat Networks	None	
27.0 Secondary Heating	None	
28.0 Water Heating		
Water Heating	Main Heating 1	
SAP Code	901	
Flue Gas Heat Recovery System	No	
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	No	
Summer Immersion	No	
Cold Water Source	From mains	
Bath Count	1	
Supplementary Immersion	No	
Immersion Only Heating Hot Water	No	

28.1 Showers

Description	**Shower Type**	**Flow Rate [l/min]**	**Rated Power [kW]**	**Connected**	**Connected To**
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	No	
Cylinder In Heated Space	No	

Summary for Input Data

Independent Time Control	No	
Insulation Type	Measured Loss	
Cylinder Volume	150.00	L
Loss	1.10	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store — None

32.0 Photovoltaic Unit — One Dwelling

Export Capable Meter?	No
Connected To Dwelling	Yes
Diverter	No
Battery Capacity [kWh]	0.00

PV Cells kWp	Orientation	Elevation	Overshading	FGHRS	MCS Certificate	Overshading Factor	MCS Certificate Reference	Panel Manufacturer
0.40	East	30°	None Or Little	No	No	1.00		

34.0 Small-scale Hydro — None

Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

elmhurst energy

Property Reference	HT-02 - Plot 26	**Issued on Date**	05/08/2025
Assessment Reference	Be Green	**Prop Type Ref**	2-bed semi
Property	HT-02 - Plot 26, Plot 26		

SAP Rating	78 C	**DER**	5.20	**TER**	10.60
Environmental	95 A	**% DER < TER**			50.94
CO_2 Emissions (t/year)	0.44	**DFEE**	34.54	**TFEE**	36.06
Compliance Check	See BREL	**% DFEE < TFEE**			4.21
% DPER < TPER	1.57	**DPER**	54.44	**TPER**	55.31

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	House, Semi-Detached	
Which Floor	0	
2.0 Number of Storeys	2	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	19.32 m	46.61 m²	2.40 m
1st Storey:	19.32 m	46.61 m²	2.70 m

8.0 Living Area	16.50	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	98.53	83.54	0.00	None	14.99	Calculate Wall Area

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
Insulated ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	46.61	46.61	None	0.00	Enter Gross Area	0.00

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	46.61

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	External Wall 1	East	4.38	0

West	Windows	External Wall 1	West	7.46	0
South	Windows	External Wall 1	South	1.03	0
Front Door	Front door	External Wall 1	East	2.12	0

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)		10.57	0.00	0.00	Yes
E3 Sill		9.56	0.00	0.00	Yes
E4 Jamb		26.70	0.00	0.00	Yes
E5 Ground floor (normal)		19.32	0.00	0.00	Yes
E6 Intermediate floor within a dwelling		19.32	0.00	0.00	Yes
E16 Corner (normal)		10.20	0.00	0.00	Yes
E18 Party wall between dwellings		10.20	0.00	0.00	Yes
E10 Eaves (insulation at ceiling level)		9.92	0.00	0.00	No
E12 Gable (insulation at ceiling level)		9.40	0.00	0.00	No
P1 Party wall - Ground floor		9.92	0.00	0.00	No
P2 Party wall - Intermediate floor within a dwelling		9.92	0.00	0.00	No
P4 Party wall - Roof (insulation at ceiling level)		9.92	0.00	0.00	No

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No	

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0	
Number of open flues	0	
Number of chimneys/flues attached to closed fire	0	
Number of flues attached to solid fuel boiler	0	
Number of flues attached to other heater	0	
Number of blocked chimneys	0	
Number of intermittent extract fans	2	
Number of passive vents	0	
Number of flueless gas fires	0	

21.0 Fixed Cooling System	No	

22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	

22.0 Lighting

No Fixed Lighting	No

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	8

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	107681	
Fuel Type	Electricity	
SAP Code	0	
In Winter	226.40	
In Summer	166.66	
Model Name	EDLA04EV3 PPC	
Manufacturer	Daikin Europe NV	

Summary for Input Data

elmhurst energy

System Type	Heat Pump
Controls SAP Code	2210
Delayed Start Stat	No
Burner Control	On/Off
HETAS approved System	No
Is MHS Pumped	Pump in heated space
Heating Pump Age	2013 or later
Heat Emitter	Radiators
Underfloor Heating	Yes - Pipes in thin screed
Flow Temperature	Enter value
Flow Temperature Value	55.00

25.0 Main Heating 2 — None

26.0 Heat Networks — None

27.0 Secondary Heating — None

28.0 Water Heating

Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	No
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	No
Summer Immersion	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	
Cylinder Volume	180.00	L
Loss	1.20	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store — None

32.0 Photovoltaic Unit	One Dwelling	
Export Capable Meter?	No	
Connected To Dwelling	Yes	
Diverter	No	

Summary for Input Data

elmhurst energy

Battery Capacity [kWh]	0.00

PV Cells kWp	Orientation	Elevation	Overshading	FGHRS	MCS Certificate	Overshading Factor	MCS Certificate Reference	Panel Manufacturer
0.40	East	30°	None Or Little	No	No	1.00		

34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

elmhurst energy

Property Reference	HT-03 (SD) - Plot 19	**Issued on Date**	05/08/2025
Assessment Reference	Be Green	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	77 C	**DER**	5.06	**TER**	10.50
Environmental	95 A	**% DER < TER**			51.81
CO_2 Emissions (t/year)	0.49	**DFEE**	33.05	**TFEE**	34.62
Compliance Check	See BREL	**% DFEE < TFEE**			4.52
% DPER < TPER	3.03	**DPER**	53.19	**TPER**	54.85

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	North	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	House, Semi-Detached	
Which Floor	0	
2.0 Number of Storeys	3	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	17.86 m	39.74 m²	2.40 m
1st Storey:	17.86 m	39.74 m²	2.70 m
2nd Storey:	16.43 m	26.90 m²	2.55 m

8.0 Living Area	17.20	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
Main wall	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	106.49	91.19	0.00	None	15.30	Enter Gross Area
Dormer walls	Timber Frame	Timber framed wall (one layer of plasterboard)	0.18	9.00	4.32	2.71	0.00	None	1.61	Enter Gross Area
Dwarf walls	Timber Frame	Timber framed wall (one layer of plasterboard)	0.13	9.00	12.78	12.78	0.00	None	0.00	Enter Gross Area

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
Insulated ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	16.54	16.54	None	0.00	Enter Gross Area	0.00
Dormer roof	External Flat Roof	Plasterboard, insulated flat roof	0.12	9.00	1.29	1.29	None	0.00	Enter Gross Area	0.00
Pitched Roof	External Slope Roof	Plasterboard, insulated slope	0.12	9.00	7.62	6.96	None	0.00	Enter Gross Area	0.66

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	39.74

12.0 Opening Types

Summary for Input Data

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40
Roof window	Manufacturer	Roof Window	Double glazed			0.50		0.70	1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
North	Windows	Main wall	North	4.71	0
South	Windows	Main wall	South	7.45	0
West	Windows	Main wall	West	1.03	0
Front Door	Front door	Main wall	North	2.12	0
North Dormer	Windows	Dormer walls	North	1.61	0
South roof window	Roof window	Pitched Roof	South	0.66	0

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)		11.12	0.00	0.00	Yes
E3 Sill		5.83	0.00	0.00	No
E4 Jamb		28.50	0.00	0.00	Yes
E5 Ground floor (normal)		17.86	0.00	0.00	Yes
E6 Intermediate floor within a dwelling		17.86	0.00	0.00	Yes
E16 Corner (normal)		13.80	0.00	0.00	No
E18 Party wall between dwellings		13.80	0.00	0.00	No
R1 Head of roof window		0.60	0.00	0.00	Yes
R2 Sill of roof window		0.60	0.00	0.00	Yes
R3 Jamb of roof window		2.20	0.00	0.00	Yes
E12 Gable (insulation at ceiling level)		3.91	0.00	0.00	No
E13 Gable (insulation at rafter level)		2.14	0.00	0.00	No
P1 Party wall - Ground floor		9.40	0.00	0.00	No
P2 Party wall - Intermediate floor within a dwelling		15.46	0.00	0.00	No
P4 Party wall - Roof (insulation at ceiling level)		6.06	0.00	0.00	No
R6 Flat ceiling		8.46	0.00	0.00	No
R7 Flat ceiling (inverted)		1.34	0.00	0.00	No
R8 Roof to wall (rafter)		7.12	0.00	0.00	No
R9 Roof to wall (flat ceiling)		3.26	0.00	0.00	No

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No	

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0	
Number of open flues	0	
Number of chimneys/flues attached to closed fire	0	
Number of flues attached to solid fuel boiler	0	
Number of flues attached to other heater	0	
Number of blocked chimneys	0	
Number of intermittent extract fans	2	
Number of passive vents	0	
Number of flueless gas fires	0	

21.0 Fixed Cooling System	No	
22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	

22.0 Lighting

No Fixed Lighting	No	

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	8

Summary for Input Data

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	107681	
Fuel Type	Electricity	
SAP Code	0	
In Winter	227.45	
In Summer	166.81	
Model Name	EDLA04EV3 PPC	
Manufacturer	Daikin Europe NV	
System Type	Heat Pump	
Controls SAP Code	2210	
Delayed Start Stat	No	
Burner Control	On/Off	
HETAS approved System	No	
Is MHS Pumped	Pump in heated space	
Heating Pump Age	2013 or later	
Heat Emitter	Radiators	
Underfloor Heating	Yes - Pipes in thin screed	
Flow Temperature	Enter value	
Flow Temperature Value	55.00	
25.0 Main Heating 2	None	
26.0 Heat Networks	None	
27.0 Secondary Heating	None	
28.0 Water Heating		
Water Heating	Main Heating 1	
SAP Code	901	
Flue Gas Heat Recovery System	No	
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	No	
Summer Immersion	No	
Cold Water Source	From mains	
Bath Count	1	
Supplementary Immersion	No	
Immersion Only Heating Hot Water	No	

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	

Summary for Input Data

Cylinder Volume	180.00	L
Loss	1.20	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	
31.0 Thermal Store	None	
34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

elmhurst energy

Property Reference	HT-03 (MT) - Plot 51	**Issued on Date**	05/08/2025
Assessment Reference	Be Green	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	79 C	**DER**	4.74	**TER**	9.59
Environmental	96 A	**% DER < TER**			50.57
CO_2 Emissions (t/year)	0.46	**DFEE**	28.23	**TFEE**	30.63
Compliance Check	See BREL	**% DFEE < TFEE**			7.85
% DPER < TPER	0.06	**DPER**	49.93	**TPER**	49.96

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	House, Mid-Terrace	
Which Floor	0	
2.0 Number of Storeys	3	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	2	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	8.46 m	39.74 m²	2.40 m
1st Storey:	8.46 m	39.74 m²	2.70 m
2nd Storey:	10.30 m	26.90 m²	2.55 m

8.0 Living Area	17.20	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
Main wall	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	43.15	28.88	0.00	None	14.27	Enter Gross Area
Dormer walls	Timber Frame	Timber framed wall (one layer of plasterboard)	0.18	9.00	4.32	2.71	0.00	None	1.61	Enter Gross Area
Dwarf walls	Timber Frame	Timber framed wall (one layer of plasterboard)	0.13	9.00	12.78	12.78	0.00	None	0.00	Enter Gross Area
Wall to adjacent loft	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	15.40	15.40	0.50	Room In Roof	0.00	Enter Gross Area

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
Insulated ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	16.54	16.54	None	0.00	Enter Gross Area	0.00
Dormer roof	External Flat Roof	Plasterboard, insulated flat roof	0.12	9.00	1.29	1.29	None	0.00	Enter Gross Area	0.00
Pitched Roof	External Slope Roof	Plasterboard, insulated slope	0.12	9.00	7.62	6.96	None	0.00	Enter Gross Area	0.66

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	39.74

Summary for Input Data

elmhurst energy

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40
Roof window	Manufacturer	Roof Window	Double glazed			0.50		0.70	1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	Main wall	East	4.71	0
West	Windows	Main wall	West	7.45	0
Front Door	Front door	Main wall	East	2.12	0
East Dormer	Windows	Dormer walls	East	1.61	0
West roof window	Roof window	Pitched Roof	West	0.66	0

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)		11.12	0.00	0.00	Yes
E3 Sill		5.83	0.00	0.00	No
E4 Jamb		28.50	0.00	0.00	Yes
E5 Ground floor (normal)		8.46	0.00	0.00	No
E6 Intermediate floor within a dwelling		18.83	0.00	0.00	No
E16 Corner (normal)		3.60	0.00	0.00	No
E18 Party wall between dwellings		24.00	0.00	0.00	No
R1 Head of roof window		0.60	0.00	0.00	Yes
R2 Sill of roof window		0.60	0.00	0.00	Yes
R3 Jamb of roof window		2.20	0.00	0.00	Yes
E12 Gable (insulation at ceiling level)		3.91	0.00	0.00	No
E13 Gable (insulation at rafter level)		2.14	0.00	0.00	No
P1 Party wall - Ground floor		18.80	0.00	0.00	No
P2 Party wall - Intermediate floor within a dwelling		30.92	0.00	0.00	No
P4 Party wall - Roof (insulation at ceiling level)		12.12	0.00	0.00	No
R6 Flat ceiling		8.46	0.00	0.00	No
R7 Flat ceiling (inverted)		1.34	0.00	0.00	No
R8 Roof to wall (rafter)		7.12	0.00	0.00	No
R9 Roof to wall (flat ceiling)		3.26	0.00	0.00	No

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0
Number of open flues	0
Number of chimneys/flues attached to closed fire	0
Number of flues attached to solid fuel boiler	0
Number of flues attached to other heater	0
Number of blocked chimneys	0
Number of intermittent extract fans	2
Number of passive vents	0
Number of flueless gas fires	0

21.0 Fixed Cooling System	No	
22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	

22.0 Lighting

No Fixed Lighting	No

Name	Efficacy	Power	Capacity	Count

Summary for Input Data

	Lighting 1	85.00	8.00	680.00	8

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	107681	
Fuel Type	Electricity	
SAP Code	0	
In Winter	226.11	
In Summer	166.62	
Model Name	EDLA04EV3 PPC	
Manufacturer	Daikin Europe NV	
System Type	Heat Pump	
Controls SAP Code	2210	
Delayed Start Stat	No	
Burner Control	On/Off	
HETAS approved System	No	
Is MHS Pumped	Pump in heated space	
Heating Pump Age	2013 or later	
Heat Emitter	Radiators	
Underfloor Heating	Yes - Pipes in thin screed	
Flow Temperature	Enter value	
Flow Temperature Value	55.00	
25.0 Main Heating 2	None	
26.0 Heat Networks	None	
27.0 Secondary Heating	None	
28.0 Water Heating		
Water Heating	Main Heating 1	
SAP Code	901	
Flue Gas Heat Recovery System	No	
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	No	
Summer Immersion	No	
Cold Water Source	From mains	
Bath Count	1	
Supplementary Immersion	No	
Immersion Only Heating Hot Water	No	

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	

Summary for Input Data

Cylinder Volume	180.00	L
Loss	1.20	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	
31.0 Thermal Store	None	
34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

elmhurst energy

Property Reference	HT-05 - Plot 34	**Issued on Date**	05/08/2025
Assessment Reference	Be Green	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	75 C	**DER**	5.39	**TER**	10.86
Environmental	95 A	**% DER < TER**			50.37
CO_2 Emissions (t/year)	0.56	**DFEE**	40.91	**TFEE**	41.52
Compliance Check	See BREL	**% DFEE < TFEE**			1.45
% DPER < TPER	0.57	**DPER**	56.46	**TPER**	56.79

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	House, Detached	
Which Floor	0	
2.0 Number of Storeys	2	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	0	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	31.27 m	56.97 m²	2.40 m
1st Storey:	31.27 m	56.97 m²	2.70 m

8.0 Living Area	27.30	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	159.48	140.87	0.00	None	18.61	Calculate Wall Area

9.2 Internal Walls

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Wall 1	Plasterboard on timber frame	9.00	133.10

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
Insulated ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	56.97	56.97	None	0.00	Enter Gross Area	0.00

10.2 Internal Ceilings

Description	Storey	Construction	Area (m²)
Internal Ceiling 1	Lowest occupied	Plasterboard ceiling, carpeted chipboard floor	39.74

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	56.97

Summary for Input Data

elmhurst energy

11.2 Internal Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Internal Floor 1		Plasterboard ceiling, carpeted chipboard floor	18.00	39.74

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	External Wall 1	East	5.09	0
West	Windows	External Wall 1	West	8.05	0
South	Windows	External Wall 1	South	2.32	0
Front Door	Front door	External Wall 1	East	2.12	0
North	Windows	External Wall 1	North	1.03	0

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
E10 Eaves (insulation at ceiling level)		11.58	0.00	0.00	No
E12 Gable (insulation at ceiling level)		19.70	0.00	0.00	No
E2 Other lintels (including other steel lintels)		12.90	0.00	0.00	Yes
E3 Sill		8.09	0.00	0.00	No
E4 Jamb		29.10	0.00	0.00	Yes
E5 Ground floor (normal)		31.27	0.00	0.00	Yes
E6 Intermediate floor within a dwelling		31.27	0.00	0.00	Yes
E16 Corner (normal)		20.40	0.00	0.00	Yes

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No	

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0	
Number of open flues	0	
Number of chimneys/flues attached to closed fire	0	
Number of flues attached to solid fuel boiler	0	
Number of flues attached to other heater	0	
Number of blocked chimneys	0	
Number of intermittent extract fans	2	
Number of passive vents	0	
Number of flueless gas fires	0	

21.0 Fixed Cooling System	No	

22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	

22.0 Lighting

No Fixed Lighting	No	

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	8

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	107681	

Summary for Input Data

Fuel Type	Electricity
SAP Code	0
In Winter	232.01
In Summer	166.99
Model Name	EDLA04EV3 PPC
Manufacturer	Daikin Europe NV
System Type	Heat Pump
Controls SAP Code	2210
Delayed Start Stat	No
Burner Control	On/Off
HETAS approved System	No
Is MHS Pumped	Pump in heated space
Heating Pump Age	2013 or later
Heat Emitter	Radiators
Underfloor Heating	Yes - Pipes in thin screed
Flow Temperature	Enter value
Flow Temperature Value	55.00

25.0 Main Heating 2 — None

26.0 Heat Networks — None

27.0 Secondary Heating — None

28.0 Water Heating

Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	No
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	No
Summer Immersion	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder — Hot Water Cylinder

Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	
Cylinder Volume	180.00	L
Loss	1.20	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

Summary for Input Data

31.0 Thermal Store	None	
34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

elmhurst energy

Property Reference	HT-07 - Plot 29	**Issued on Date**	05/08/2025
Assessment Reference	Be Green	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	78 C	**DER**	4.67	**TER**	9.89
Environmental	96 A	**% DER < TER**			52.78
CO_2 Emissions (t/year)	0.53	**DFEE**	32.44	**TFEE**	34.97
Compliance Check	See BREL	**% DFEE < TFEE**			7.24
% DPER < TPER	4.96	**DPER**	49.07	**TPER**	51.63

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	South	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	House, Semi-Detached	
Which Floor	0	
2.0 Number of Storeys	3	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	19.32 m	46.61 m²	2.40 m
1st Storey:	19.32 m	46.61 m²	2.70 m
2nd Storey:	17.46 m	31.04 m²	2.57 m

8.0 Living Area	20.40	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
Main wall	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	113.94	97.60	0.00	None	16.34	Enter Gross Area
Dormer walls	Timber Frame	Timber framed wall (one layer of plasterboard)	0.18	9.00	4.32	2.71	0.00	None	1.61	Enter Gross Area
Dwarf walls	Timber Frame	Timber framed wall (one layer of plasterboard)	0.13	9.00	15.44	15.44	0.00	None	0.00	Enter Gross Area

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
Insulated ceiling	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	16.54	16.54	None	0.00	Enter Gross Area	0.00
Dormer roof	External Flat Roof	Plasterboard, insulated flat roof	0.12	9.00	1.29	1.29	None	0.00	Enter Gross Area	0.00
Pitched Roof	External Slope Roof	Plasterboard, insulated slope	0.12	9.00	7.62	6.96	None	0.00	Enter Gross Area	0.66

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	39.74

12.0 Opening Types

Summary for Input Data

elmhurst energy

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40
Roof window	Manufacturer	Roof Window	Double glazed			0.50		0.70	1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
South	Windows	Main wall	South	5.15	0
North	Windows	Main wall	North	8.05	0
West	Windows	Main wall	East	1.03	0
Front Door	Front door	Main wall	South	2.12	0
South Dormer	Windows	Dormer walls	South	1.61	0
North roof window	Roof window	Pitched Roof	North	0.66	0

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
E16 Corner (normal)		13.80	0.00	0.00	No
E18 Party wall between dwellings		13.80	0.00	0.00	No
E12 Gable (insulation at ceiling level)		3.91	0.00	0.00	No
E13 Gable (insulation at rafter level)		2.14	0.00	0.00	No
P1 Party wall - Ground floor		9.40	0.00	0.00	No
P2 Party wall - Intermediate floor within a dwelling		15.46	0.00	0.00	No
P4 Party wall - Roof (insulation at ceiling level)		6.06	0.00	0.00	No
E2 Other lintels (including other steel lintels)		12.04	0.00	0.00	Yes
E3 Sill		6.96	0.00	0.00	No
E4 Jamb		30.90	0.00	0.00	Yes
E5 Ground floor (normal)		19.32	0.00	0.00	Yes
E6 Intermediate floor within a dwelling		36.78	0.00	0.00	Yes
E16 Corner (normal)		15.34	0.00	0.00	Yes
E18 Party wall between dwellings		13.80	0.00	0.00	No
R1 Head of roof window		0.60	0.00	0.00	Yes
R2 Sill of roof window		0.60	0.00	0.00	Yes
R3 Jamb of roof window		2.20	0.00	0.00	Yes
R6 Flat ceiling		9.92	0.00	0.00	No
R7 Flat ceiling (inverted)		1.34	0.00	0.00	No
R8 Roof to wall (rafter)		8.58	0.00	0.00	No
R9 Roof to wall (flat ceiling)		3.26	0.00	0.00	No

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No	

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0	
Number of open flues	0	
Number of chimneys/flues attached to closed fire	0	
Number of flues attached to solid fuel boiler	0	
Number of flues attached to other heater	0	
Number of blocked chimneys	0	
Number of intermittent extract fans	2	
Number of passive vents	0	
Number of flueless gas fires	0	

21.0 Fixed Cooling System	No	

22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	

22.0 Lighting

No Fixed Lighting	No	

Summary for Input Data

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	8

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	107681	
Fuel Type	Electricity	
SAP Code	0	
In Winter	229.35	
In Summer	166.94	
Model Name	EDLA04EV3 PPC	
Manufacturer	Daikin Europe NV	
System Type	Heat Pump	
Controls SAP Code	2210	
Delayed Start Stat	No	
Burner Control	On/Off	
HETAS approved System	No	
Is MHS Pumped	Pump in heated space	
Heating Pump Age	2013 or later	
Heat Emitter	Radiators	
Underfloor Heating	Yes - Pipes in thin screed	
Flow Temperature	Enter value	
Flow Temperature Value	55.00	
25.0 Main Heating 2	None	
26.0 Heat Networks	None	
27.0 Secondary Heating	None	
28.0 Water Heating		
Water Heating	Main Heating 1	
SAP Code	901	
Flue Gas Heat Recovery System	No	
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	No	
Summer Immersion	No	
Cold Water Source	From mains	
Bath Count	1	
Supplementary Immersion	No	
Immersion Only Heating Hot Water	No	

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	

Summary for Input Data

Insulation Type	Measured Loss	
Cylinder Volume	180.00	L
Loss	1.20	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	
31.0 Thermal Store	None	
34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

elmhurst energy

Property Reference	GF Flat - Plot 67	**Issued on Date**	05/08/2025
Assessment Reference	Be Green	**Prop Type Ref**	2-bed semi
Property	GF Flat - Plot 67, Plot 67		

SAP Rating	84 B	**DER**	4.37	**TER**	8.63
Environmental	97 A	**% DER < TER**			49.36
CO_2 Emissions (t/year)	0.23	**DFEE**	27.80	**TFEE**	32.28
Compliance Check	See BREL	**% DFEE < TFEE**			13.86
% DPER < TPER	1.75	**DPER**	45.34	**TPER**	46.15

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	Flat, End-Terrace	
Position of Flat	Ground-floor flat	
Which Floor	1	
2.0 Number of Storeys	1	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	23.88 m	61.30 m²	2.40 m
1st Storey:	17.86 m	39.74 m²	2.70 m

8.0 Living Area	24.10	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	57.31	50.00	0.00	None	7.31	Calculate Wall Area

10.1 Party Ceilings

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	61.30

11.0 Heat Loss Floors

Description	Type	Storey Index	Construction	U-Value (W/m²K)	Shelter Code	Shelter Factor	Kappa (kJ/m²K)	Area (m²)
Heatloss Floor 1	Ground Floor - Solid	Lowest occupied	Slab on ground, screed over insulation	0.12	None	0.00	110.00	61.30

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	External Wall 1	East	3.98	0

West	Windows	External Wall 1	West	2.65	0
South	Windows	External Wall 1	South	0.68	0

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
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)		10.00	0.00	0.00	No
P1 Party wall - Ground floor		10.00	0.00	0.00	No
E2 Other lintels (including other steel lintels)		4.48	0.00	0.00	Yes
E3 Sill		2.68	0.00	0.00	No
E4 Jamb		11.80	0.00	0.00	Yes
E5 Ground floor (normal)		23.88	0.00	0.00	Yes
E16 Corner (normal)		9.60	0.00	0.00	No
E18 Party wall between dwellings		2.40	0.00	0.00	No
E9 Balcony between dwellings, wall insulation continuous		2.46	0.00	0.00	No
E7 Party floor between dwellings (in blocks of flats)		21.42	0.00	0.00	No
E17 Corner (inverted – internal area greater than external area)		2.40	0.00	0.00	No
E25 Staggered party wall between dwellings		2.40	0.00	0.00	No

Y-value 0.02 W/m²K

Description Notional

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present No

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys 0

Number of open flues 0

Number of chimneys/flues attached to closed fire 0

Number of flues attached to solid fuel boiler 0

Number of flues attached to other heater 0

Number of blocked chimneys 0

Number of intermittent extract fans 2

Number of passive vents 0

Number of flueless gas fires 0

21.0 Fixed Cooling System No

22.0 Pressure Testing Yes

Designed AP_{50} 4.00 m³/(h.m²) @ 50 Pa

Property Tested? Yes

Test Method Blower Door

22.0 Lighting

No Fixed Lighting No

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	5

24.0 Main Heating 1 Database

Percentage of Heat 100.00 %

Database Ref. No. 107681

Fuel Type Electricity

SAP Code 0

In Winter 229.40

In Summer 170.21

Model Name EDLA04EV3 PPC

Summary for Input Data

Manufacturer	Daikin Europe NV
System Type	Heat Pump
Controls SAP Code	2210
Delayed Start Stat	No
Burner Control	On/Off
HETAS approved System	No
Is MHS Pumped	Pump in heated space
Heating Pump Age	2013 or later
Heat Emitter	Radiators
Underfloor Heating	Yes - Pipes in thin screed
Flow Temperature	Enter value
Flow Temperature Value	55.00

25.0 Main Heating 2 — None

26.0 Heat Networks — None

27.0 Secondary Heating — None

28.0 Water Heating

Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	No
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	No
Summer Immersion	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder — Hot Water Cylinder

Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	
Cylinder Volume	150.00	L
Loss	1.10	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store — None

32.0 Photovoltaic Unit — One Dwelling

Export Capable Meter?	No
Connected To Dwelling	Yes

Summary for Input Data

Diverter	No	
Battery Capacity [kWh]	0.00	

PV Cells kWp	Orientation	Elevation	Overshading	FGHRS	MCS Certificate	Overshading Factor	MCS Certificate Reference	Panel Manufacturer
1.60	South	30°	None Or Little	No	No	1.00		

34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

elmhurst energy

Property Reference	MF Flat - Plot 70	**Issued on Date**	05/08/2025
Assessment Reference	Be Green	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	88 B	**DER**	3.39	**TER**	6.56
Environmental	97 A	**% DER < TER**			48.32
CO_2 Emissions (t/year)	0.18	**DFEE**	20.14	**TFEE**	22.57
Compliance Check	See BREL	**% DFEE < TFEE**			10.77
% DPER < TPER	0.25	**DPER**	34.96	**TPER**	35.05

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	Flat, End-Terrace	
Position of Flat	Mid-floor flat	
Which Floor	1	
2.0 Number of Storeys	1	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	23.88 m	61.30 m²	2.40 m
1st Storey:	17.86 m	39.74 m²	2.70 m

8.0 Living Area	24.10	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	57.31	50.00	0.00	None	7.31	Calculate Wall Area

10.1 Party Ceilings

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	61.30

11.1 Party Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Party Floor 1	Lowest occupied	Precast concrete planks floor, screed, carpeted	40.00	61.30

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40

13.0 Openings

Summary for Input Data

elmhurst energy

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	External Wall 1	East	3.98	0
West	Windows	External Wall 1	West	2.65	0
South	Windows	External Wall 1	South	0.68	0

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
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)		20.00	0.00	0.00	No
E2 Other lintels (including other steel lintels)		4.48	0.00	0.00	Yes
E3 Sill		2.68	0.00	0.00	No
E4 Jamb		11.80	0.00	0.00	Yes
E16 Corner (normal)		9.60	0.00	0.00	No
E18 Party wall between dwellings		2.40	0.00	0.00	No
E9 Balcony between dwellings, wall insulation continuous		4.92	0.00	0.00	No
E7 Party floor between dwellings (in blocks of flats)		42.84	0.00	0.00	No
E17 Corner (inverted – internal area greater than external area)		2.40	0.00	0.00	No
E25 Staggered party wall between dwellings		2.40	0.00	0.00	No

Y-value 0.02 W/m²K

Description Notional

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present No

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys 0

Number of open flues 0

Number of chimneys/flues attached to closed fire 0

Number of flues attached to solid fuel boiler 0

Number of flues attached to other heater 0

Number of blocked chimneys 0

Number of intermittent extract fans 2

Number of passive vents 0

Number of flueless gas fires 0

21.0 Fixed Cooling System No

22.0 Pressure Testing Yes

Designed AP_{50} 4.00 m³/(h.m²) @ 50 Pa

Property Tested? Yes

Test Method Blower Door

22.0 Lighting

No Fixed Lighting No

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	5

24.0 Main Heating 1 Database

Percentage of Heat 100.00 %

Database Ref. No. 107681

Fuel Type Electricity

SAP Code 0

In Winter 226.63

In Summer 170.69

Model Name EDLA04EV3 PPC

Summary for Input Data

Manufacturer	Daikin Europe NV
System Type	Heat Pump
Controls SAP Code	2210
Delayed Start Stat	No
Burner Control	On/Off
HETAS approved System	No
Is MHS Pumped	Pump in heated space
Heating Pump Age	2013 or later
Heat Emitter	Radiators
Underfloor Heating	Yes - Pipes in thin screed
Flow Temperature	Enter value
Flow Temperature Value	55.00

25.0 Main Heating 2 — None

26.0 Heat Networks — None

27.0 Secondary Heating — None

28.0 Water Heating

Water Heating	Main Heating 1
SAP Code	901
Flue Gas Heat Recovery System	No
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	No
Summer Immersion	No
Cold Water Source	From mains
Bath Count	1
Supplementary Immersion	No
Immersion Only Heating Hot Water	No

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder — Hot Water Cylinder

Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	
Cylinder Volume	150.00	L
Loss	1.10	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	

31.0 Thermal Store — None

32.0 Photovoltaic Unit — One Dwelling

Export Capable Meter?	No
Connected To Dwelling	Yes

Summary for Input Data

Diverter	No
Battery Capacity [kWh]	0.00

PV Cells kWp	Orientation	Elevation	Overshading	FGHRS	MCS Certificate	Overshading Factor	MCS Certificate Reference	Panel Manufacturer
2.40	South	30°	None Or Little	No	No	1.00		

34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None

Summary for Input Data

elmhurst energy

Property Reference	TF Flat - Plot 73	**Issued on Date**	05/08/2025
Assessment Reference	Be Green	**Prop Type Ref**	2-bed semi
Property	HT-01 - Plot 39, Plot 39		

SAP Rating	78 C	**DER**	5.98	**TER**	12.25
Environmental	95 A	**% DER < TER**			51.18
CO_2 Emissions (t/year)	0.34	**DFEE**	28.25	**TFEE**	29.58
Compliance Check	See BREL	**% DFEE < TFEE**			4.50
% DPER < TPER	2.00	**DPER**	63.33	**TPER**	64.63

Assessor Details	Mr. George Kent	**Assessor ID**	BQ97-0001
Client			

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

Orientation	East	
Property Tenture	ND	
Transaction Type	6	
Terrain Type	Rural	
1.0 Property Type	Flat, End-Terrace	
Position of Flat	Top-floor flat	
Which Floor	3	
2.0 Number of Storeys	1	
3.0 Date Built	2025	
3.0 Property Age Band	L	
4.0 Sheltered Sides	1	
5.0 Sunlight/Shade	Average or unknown	
6.0 Thermal Mass Parameter	Enter TMP value	
Thermal Mass	200.00	kJ/m²K
7.0 Electricity Tariff	Standard	
Smart electricity meter fitted	No	
Smart gas meter fitted	No	

7.0 Measurements

	Heat Loss Perimeter	Internal Floor Area	Average Storey Height
Ground floor:	23.88 m	61.30 m²	2.40 m
1st Storey:	17.86 m	39.74 m²	2.70 m

8.0 Living Area	24.10	m²

9.0 External Walls

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Res	Shelter	Openings	Area Calculation Type
External Wall 1	Cavity Wall	Cavity wall; plasterboard on dabs or battens, lightweight aggregate block, filled cavity, any outside structure	0.18	110.00	57.31	50.00	0.00	None	7.31	Calculate Wall Area

10.0 External Roofs

Description	Type	Construction	U-Value (W/m²K)	Kappa (kJ/m²K)	Gross Area(m²)	Nett Area (m²)	Shelter Code	Shelter Factor	Calculation Type	Openings
External Roof 1	External Plane Roof	Plasterboard, insulated at ceiling level	0.12	9.00	48.43	47.77	None	0.00	Enter Gross Area	0.66
Pitched roof	External Slope Roof	Plasterboard, insulated slope	0.12	9.00	14.17	14.17	None	0.00	Enter Gross Area	0.00

10.1 Party Ceilings

Description	Construction	Kappa (kJ/m²K)	Area (m²)
Party Ceiling 1	Precast concrete planks floor, screed, carpeted	30.00	61.30

11.1 Party Floors

Description	Storey Index	Construction	Kappa (kJ/m²K)	Area (m²)
Party Floor 1	Lowest occupied	Precast concrete planks floor, screed, carpeted	40.00	61.30

Summary for Input Data

elmhurst energy

12.0 Opening Types

Description	Data Source	Type	Glazing	Glazing Gap	Filling Type	G-value	Frame Type	Frame Factor	U Value (W/m²K)
Windows	Manufacturer	Window	Double glazed			0.50		0.70	1.40
Front door	Manufacturer	Solid Door				0.00			1.40
Roof window	Manufacturer	Roof Window	Double glazed			0.50		0.70	1.40

13.0 Openings

Name	Opening Type	Location	Orientation	Area (m²)	Pitch
East	Windows	External Wall 1	East	3.98	0
West	Windows	External Wall 1	West	2.65	0
South	Windows	External Wall 1	South	0.68	0
South roof window	Roof window	External Roof 1	South	0.66	0

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
P3 Party wall - Intermediate floor between dwellings (in blocks of flats)		10.00	0.00	0.00	No
E16 Corner (normal)		9.60	0.00	0.00	No
E18 Party wall between dwellings		2.40	0.00	0.00	No
E9 Balcony between dwellings, wall insulation continuous		2.46	0.00	0.00	No
E7 Party floor between dwellings (in blocks of flats)		21.42	0.00	0.00	No
E17 Corner (inverted – internal area greater than external area)		2.40	0.00	0.00	No
E25 Staggered party wall between dwellings		2.40	0.00	0.00	No
P4 Party wall - Roof (insulation at ceiling level)		10.00	0.00	0.00	No
E2 Other lintels (including other steel lintels)		4.48	0.00	0.00	Yes
E3 Sill		4.48	0.00	0.00	Yes
E4 Jamb		11.80	0.00	0.00	Yes
R1 Head of roof window		0.60	0.00	0.00	Yes
R2 Sill of roof window		0.60	0.00	0.00	Yes
R3 Jamb of roof window		2.20	0.00	0.00	Yes
R6 Flat ceiling		11.97	0.00	0.00	No

Y-value	0.02	W/m²K
Description	Notional	

19.0 Mechanical Ventilation

Mechanical Ventilation

Mechanical Ventilation System Present	No

20.0 Fans, Open Fireplaces, Flues

Number of open chimneys	0
Number of open flues	0
Number of chimneys/flues attached to closed fire	0
Number of flues attached to solid fuel boiler	0
Number of flues attached to other heater	0
Number of blocked chimneys	0
Number of intermittent extract fans	2
Number of passive vents	0
Number of flueless gas fires	0

21.0 Fixed Cooling System	No	

22.0 Pressure Testing	Yes	
Designed AP_{50}	4.00	m³/(h.m²) @ 50 Pa
Property Tested?	Yes	
Test Method	Blower Door	

22.0 Lighting

No Fixed Lighting	No

Name	Efficacy	Power	Capacity	Count
Lighting 1	85.00	8.00	680.00	5

Summary for Input Data

24.0 Main Heating 1	Database	
Percentage of Heat	100.00	%
Database Ref. No.	107681	
Fuel Type	Electricity	
SAP Code	0	
In Winter	229.48	
In Summer	170.08	
Model Name	EDLA04EV3 PPC	
Manufacturer	Daikin Europe NV	
System Type	Heat Pump	
Controls SAP Code	2210	
Delayed Start Stat	No	
Burner Control	On/Off	
HETAS approved System	No	
Is MHS Pumped	Pump in heated space	
Heating Pump Age	2013 or later	
Heat Emitter	Radiators	
Underfloor Heating	Yes - Pipes in thin screed	
Flow Temperature	Enter value	
Flow Temperature Value	55.00	
25.0 Main Heating 2	None	
26.0 Heat Networks	None	
27.0 Secondary Heating	None	
28.0 Water Heating		
Water Heating	Main Heating 1	
SAP Code	901	
Flue Gas Heat Recovery System	No	
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	No	
Summer Immersion	No	
Cold Water Source	From mains	
Bath Count	1	
Supplementary Immersion	No	
Immersion Only Heating Hot Water	No	

28.1 Showers

Description	Shower Type	Flow Rate [l/min]	Rated Power [kW]	Connected	Connected To
Shower	Combi boiler or unvented hot water system	11.00		No	

28.3 Waste Water Heat Recovery System

29.0 Hot Water Cylinder	Hot Water Cylinder	
Cylinder Stat	No	
Cylinder In Heated Space	No	
Independent Time Control	No	
Insulation Type	Measured Loss	
Cylinder Volume	150.00	L

Summary for Input Data

Loss	1.10	kWh/day
Pipes insulation	Fully insulated primary pipework	
In Airing Cupboard	No	
31.0 Thermal Store	None	
34.0 Small-scale Hydro	None	
Electricity Generated	0.00	
Apportioned	0.00	kWh/Year
Connected to dwelling's electricity meter	Yes	
Electricity Generation	Annual	

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

Recommendations

Lower cost measures

None

Further measures to achieve even higher standards

None