



Heating our homes not our planet



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MCS Number 31849

RECC Membership No. 00071003

BUS – Installer Account number BUS0000018

Quote Reference:	01513 26 Ilex Way
Date	25/09/2025
Contact:	Mr Chris Pope
Project Address:	26 Ilex Way, Goring-by-Sea, Worthing, BN12 4UY
Proposal Type:	Boiler Upgrade Scheme Voucher Application
Build Type	Self Build
Technology Type	ASHP – Air Source Heat Pump
EPC Number	N/A
Type of existing heating	N/A
Declaration of Ownership	privately owned

Revision	Description	Issued by	Date	Checked by
00	Budget	ES	25/09/2025	JH
01	Including flow and return pipe run	ES	08/10/2025	JH

Boiler Upgrade Scheme Ofgem requirements

Ofgem will be contacting you regarding the BUS voucher application and you will be asked to confirm that you have consented to a BUS voucher application being made.

Ofgem will be verifying your identity and you will be asked to confirm your identity (this may include sending digital copies of ID documents to Ofgem).

Access to your property may be required by Ofgem for audit purposes.

Property owners will be required to confirm

- full name
- key project details, including the installation address, proposed low carbon heating system and project cost
- that you own (or co-own) the property at the installation and, where there are multiple owners of a property, that you, the person providing consent is acting with their agreement
- that you consent to the installer making a BUS application
- that you will become the owner of the low carbon heating system upon completion of the installation
- the property is not social housing
- you have not received other support from public funds or government schemes, such as the Energy Company Obligation (ECO), for any of the costs of the purchase or installation of the eligible low carbon heating system in question.
- That the property has a valid EPC at the time of the application being made.

This proposal provides the full price **without** the BUS grant of £7500 taken off the total.

This document has been prepared for the sole benefit, use and information of the Client for the purposes set out in the proposal. The liability of Snugg Systems Limited in respect of the information contained in the document will not extend to any third party.

Snugg Systems Limited is a full-service ground and air source heat pump energy company, specialising in the planning, design, specification, installation, integration, commissioning, operation and maintenance of ground and air source heat pump.

Our unbiased approach ensures that all our client's receive unbiased advice on the most appropriate technologies for their development in order to maximise savings on energy costs, compliance with statutory and planning requirements and capitalising on finance and incentives.

All Snugg Systems' design, installation and commissioning procedures are performed, where applicable in accordance with the following standards and recommendations:

- a) **Microgeneration Installation Standard MIS3005 D issue 2.0 and I issue 1.0**
- b) **Snugg Systems' in-house design and operating procedures**
- c) **The Ground Source Heat Pump Society Recommendations and publications**
- d) **The International Ground Source Heat Pump Association (IGSHPA)**
- e) **International Energy Agency (IEA)**
- f) **Environment Agency guidelines**
- g) **HVAC Guide to Good Practice – TR/30 Guide to good practice: heat pumps (BESA, 2013)**
- h) **RECC, Renewable Energy Consumer Code**

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1. Proposal Summary

1.1 Proposal Outline

This proposal is for Snugg Systems Limited (Snugg Systems) to supply and install an air source heat pump system consisting of 1No. Mitsubishi Ecodan 6kW ASHP to provide the building's space heating and domestic hot water requirements.

This system will be certified under the Microgeneration Certification Scheme of which Snugg Systems is accredited.

1.2 Outline Design Information Used

1.2.1 Design Parameters Used

We have estimated the following:

- | | |
|------------------------------------|-------------------|
| • Peak space Heating Requirement: | 4.11 kW |
| • Annual Heating/DHW requirement: | 9,143/ 2,292kWhrs |
| • Heating flow temperature: | up to 45°C |
| • Heating flow/return ΔT : | 5-7°C |

1.3 System Interface and Control

The heat pumps have their own microprocessor controls and the compressor will be activated when a signal from the existing buildings heating controls is provided. We can provide heating controls within the home, however we have not included for this at this stage, as homeowners have many different views on controls.

Hot water production will be via sensor within the hot water cylinder which we have allowed for the supply and wiring of from an existing local fused spur.

All control and power wiring associated with the equipment Snugg Systems installs will be wired by Snugg Systems from mains power supplies. Mains power to be supplied by the client to within 1m of the cylinder. Should the client not be able to do this, we can provide this service, but it is not included at this stage. Snugg to supply mains power to Heat Pump.

As per updated MCS requirements a single-phase electricity meter is required to be installed on the power feed to the ASHP, we have made an allowance for this.

The heat pump will be able to heat the specified cylinder within no more than 120 minutes.

1.4 What does this Proposal Include for

- Design of plantroom element of heat pump system.
- Project management.
- Supply, installation and commissioning of:
 - 1No. Mitsubishi Ecodan 6kW single phase air source heat pump
 - Supply and installation of 210L cylinder
 - Plantroom installation installed using suitably sized pipework, valves and fittings.
- Control and power wiring for the heat pump system
- Setting to Work and Commissioning of heat pump system
- MCS Certification and Handover Pack
- Provision of O&M manuals

Please see section 6 party responsibilities, demarcations and attendances.

1.5 Proposal Price

Our total proposal sum is **£12,619.41 excluding VAT**. The renewable energy VAT rate at the present moment is 0%.

1.6 Other Remarks

- This price is valid for 30 days from the date of issue and is Subject to Contract.
- Current availability is 2-4 weeks from receipt of order, dependant on manufacturers scheduling.

2. Tender Information Provided by the Client

		Yes	No
1.	Mechanical Specification		X
2.	Heat Pump Specification		X
3.	Design Loads (annual profiles)		X
4.	Sap Calculation		X
5.	Plans	X	
6.	Completed enquiry Form		X
7.	Other		X

3. System Performance

3.1 Heat Pump Efficiency

Here we have specified the use of 1No. Mitsubishi Ecodan 6kW ASHP. The heating performance for this product is as follows:

Inlet/Flow temperature	Output	Total Output	CoP/SCOP
A-3/W45	4.11kW	6kW	2.50/>4.07

NOTE:

1. CoP - Coefficient of Performance:

Efficiency of the heat pump operating at any point in time under prevailing conditions at that point in time (i.e. external air temperature and heating flow temperature). COP is calculated as the heat output (kW) (from the condenser) (Q) against the electrical power input (kW) (to the compressor) (W). $COP = Q/W$.

*CoP is based upon external air temperature of -3°C and output temperature to the heating system of 45°C.

2. SCOP - Seasonal COP

This is the estimated COP averaged over a single year of heating and hot water. It is calculated as the total heat output (kWh) divided by the total electrical input (kWhr).

3.2 Microgeneration Certificate Requirement

"In a well designed and implemented heat pump system it's possible to get significant running cost savings over a gas/oil fired system. Off peak electricity can be used to pre-heat under floor heating where

applicable and reduce running costs further. If you factor in a level of fuel price inflation then the real savings each year become larger, reducing the pay-back period.”

“The performance of Microgeneration heat pump systems is impossible to predict with certainty due to the variability of the climate and its subsequent effect on both heat supply and demand. This estimate is based upon the best available information but is given as guidance only and should not be considered as a guarantee”.

3.3 Predicted Savings



*CO2 Emission figures BEIS conversion factors 2024. Annual costs based on; electricity £0.23 p/kWh, gas £0.06 p/kWh, oil £0.11p/kWh, LPG £0.14p/kWh

4. Proposal Sum Analysis

Item	Description	Unit	Qty	Rate (£)	Total (£)
Section 1 – Heat Pump Installation					
1.1	Supply of a 1No. Mitsubishi Ecodan 6kW air source heat pump and 210L cylinder. Anti-vibration feet. Frost Valve	Sum	1	£7,493.12	£7,493.12
1.2	Installation, setting system & Commissioning	Sum	1	£2,578.50	£2,578.50
1.3	Supply and installation of: Buried pre-insulated flow and return pipe from ASHP to house. Electrics and communication cable to heat pump. Trench to be dug and backfilled by others.				
	Flow and return pipes with insulation from utility room to cylinder.	Sum	1	£1,782.79	£1,782.79
Total Section 1					£11,854.41
Section 2 – Design & Project Management					
2.1	Project management	Sum	1	£ 215.00	£ 215.00
2.2	MCS survey and Design of system	Sum	1	£550.00	£550.00
Total Section 2					£765.00
Total Proposal Sum (in GBP Excluding VAT)					£12,619.41
VAT@0%					£0.00
Total					£12,619.41
Boiler Upgrade Scheme					- £7500
Total less Grant					£ 5,119.41

Please note should there be increased tariffs and or any price rises by suppliers and manufacturers we are not liable and will re-submit our proposal reflecting the price increases.

5. Proposed Schedule of Works of Works

5.1 Preliminaries

- Project management
- Design warranties
- Working drawings
- System warranties
- Site supervision/meetings

5.2 Plant room installation

- Supply, installation and commissioning of:
 - 1No. Mitsubishi Ecodan 6kW single phase air source heat pump
 - Supply and installation of 210L cylinder
 - Plantroom installation installed using suitably sized pipework, valves and fittings.
- Control and power wiring
- Setting to Work and Commissioning of heat pump system
- MCS Certification and Handover Pack
- Provision of O&M manuals

5.3 Commissioning

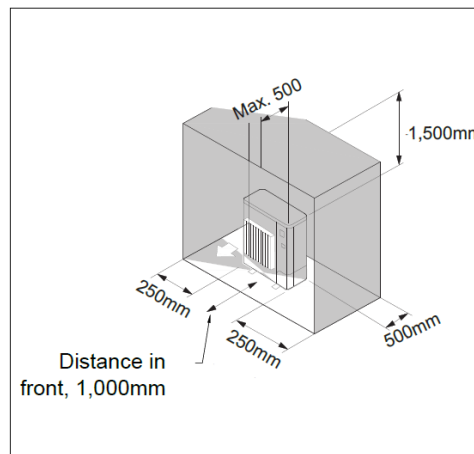
- System commissioning of heat pump system and handing over, including all installation drawings
- O&M manuals and system instructions.

6. Party responsibilities/Demarcation/Attendances

	Snugg Systems	Client
Builders work (other than small holes and fixings)		X
Mains electrical work- unless organized and quoted for by Snugg		X
Flushing and water treatment of existing pipework and heating distribution – unless Snugg is completing the secondary work		X
Control and power wiring to our equipment (mains power within 1 m of equipment)	X	
Thermal insulation of pipe work (external pipework)	X	
Installation of unvented pipework and safety devices and signing off or informing building control to comply with G3 regulations	X	
Supply and installation of secondary return pump, timer and pipework (if required)		X
Primary heating pumps and controls	X	
Making good to internal/external of building fabric		X
Breaking out of concrete areas		X
Reinstatement of concrete or grassed areas		X
Secure storage of parts and equipment		X
Parking for works vehicles		X
Solid base for heat pump to be mounted upon, plumb level		X
Sufficient means for ASHP condensate to be drained away (gravel soakaway, French drain)		X

We are more than happy to complete the works under client responsibility, however within this proposal it is not included. Please feel welcome to inform us of those areas which you wish for us to complete.

6.1 Mitsubishi ASHP required clearances



7. Proposed Outline Programme of Works

At this stage, we have no concerns about executing the works. However, at pre-contract stage we would request further details as the Main Contractors programme and schedule of works.

Our current outline programme of works is as follows:

- BUS application – 2-6 Weeks
- Pre-Mobilisation – 2-4 Weeks
- Heat Pump Installation – 3 Days
- Commissioning – 1 Day

8. End Client 'Soft Landings' & System Optimisation

We are conscious that the proposed installation represents new technology to end Clients. As such, a more detailed handover is required, which can include multiple visits over an extended period.

Therefore, we commit to engaging with the end Client beyond the normal obligations under a subcontract defects liability period. This engagement includes a commitment to regular, reasonable visits including training sessions as requested by the end user within the first 6 months of Handover.

This 'Soft Landings' approach is designed to incorporate a 6-month System Optimisation process, whereby the performance of the system is assessed and confirmed as operating within the Specified parameters. Should operating adjustments be required to improve system performance or the end Client's requirements alter from the Specification, adjustments (where possible) will be made within this period.

9. Warranties

The system design and installation will be warranted under subcontract Collateral Warranty.

All manufacturers' warranties for installed plant and equipment will be transferred in favour of the end Client upon completion.

10. Service and Maintenance

In order that the installed plant and equipment remains within manufacturer's warranty, the system must be serviced annually in accordance with the manufacturer's instructions.

11. Terms

We propose to undertake the works in accordance with the RECC Limited terms and conditions. Please confirm if you would like to complete the works under a different form of contract or set of terms.



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