QUALIS®
ENERGY

Sales Proposal:
HVAC & Renewable Project

Air Source Heat Pump
Solar PV and Battery Storage
Under Floor Heating
1st Fix Plumbing and Drainage

Agenda

Executive Summary

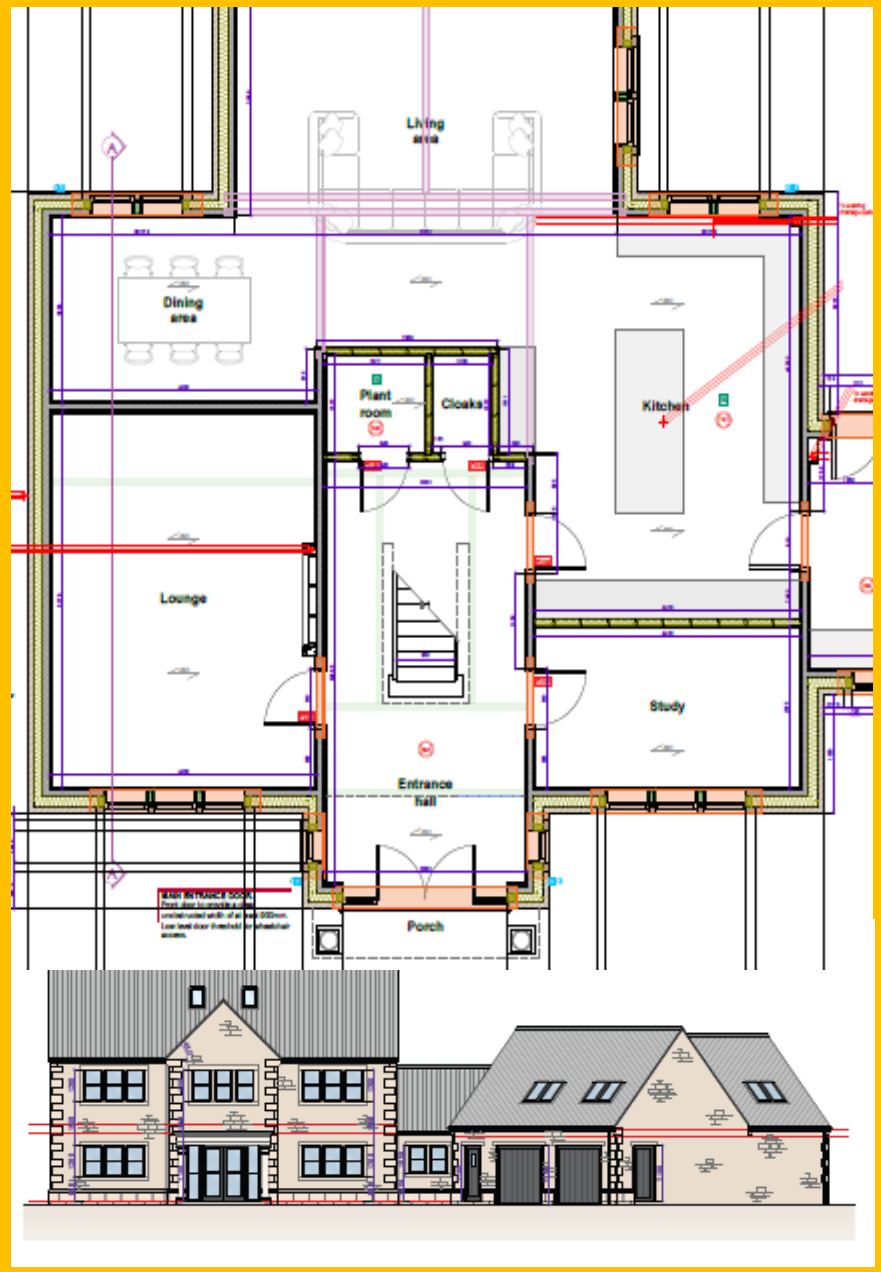
Sustainable comfort and long-term value for your new home.

Client Outcome Promise

Our proposal provides a complete residential upgrade with advanced HVAC and renewable energy systems, focusing on performance, efficiency, and comfort. You benefit from reduced operational costs, improved comfort, and a positive environmental impact.

Key Takeaways

- Total project cost: £58,699.15 before grant deduction.
- Scope: heat pump, solar PV, underfloor heating, plumbing.
- £7,500 Ofgem Boiler Upgrade Scheme grant deduction applies.



Project Background and Objectives

Residential self-build: comfort, efficiency, decarbonisation goals.

01

Residential Self-Build Context

The project involves a new residential self-build property requiring integrated heating and renewable energy solutions. The focus is on creating a modern, efficient, and comfortable home environment for the occupants.

02

Project Objectives

Key goals include maximixing occupant comfort, enhancing energy efficiency, and minimizing environmental impact. The proposal outlines the use of air source heat pump, solar PV, and underfloor heating for optimal performance.

03

Compliance and Decarbonisation Considerations

The project must comply with relevant building regulations and aims for significant decarbonisation. Considerations include eligibility for grants such as the Boiler Upgrade Scheme, aligning with the UK's sustainability targets.

Assumptions and Constraints

Outline of project fundamentals impacting design and delivery

Key Assumptions

- Residential self-build property basis
- 3 Phase electrical supply available
- Typical roof space for solar PV install

External ASHP access; standard services support integration

01

Principal Constraints

- Site surveys needed before final design
- Planning or noise limits for ASHP
- Emitter locations per client selections

Schedule, scope depend on surveys, permissions, client choices.

02

HVAC and Renewables Integration

Efficiency, comfort, savings solution for homes

Air Source Heat Pump

Delivers efficient heating by extracting renewable energy from the air. Provides year-round climate control, significantly reducing traditional energy use.

Solar PV

Generates clean electricity from sunlight, lowering grid reliance and utility bills. Designed to maximize on-site renewable energy for greater self-sufficiency.

Underfloor Heating

Evenly distributes heat for superior comfort and flexibility. Works seamlessly with low-temperature systems, enhancing efficiency and room usability.

Our integrated solution combines air source heat pump, solar PV, and underfloor heating to deliver efficient, sustainable comfort while lowering running costs and carbon footprint.

Air Source Heat Pump System

Efficient, low-carbon heating: integrated ASHP kit and cylinder for comfort and sustainability.

01

Primary Heat Source

The ASHP kit and cylinder serve as the main heating system, delivering efficient, low-carbon thermal energy for the property.

- High performance output
- Reduces carbon emissions
- Enhances comfort year-round

02

System Benefits

Provides excellent compatibility with underfloor heating and low temperature emitters, optimising energy use for comfortable living.

- Supports underfloor heating
- Performs at low temperatures
- Reliable performance

03

System Components

Includes the outdoor ASHP unit, indoor cylinder, all required controls, and connections to the home's heating distribution.

- Outdoor ASHP unit
- Indoor hot water cylinder
- Controls, pipework included

Underfloor Heating and Emitters

Underfloor heating in key zones; radiators or fan convectors supplement where needed.

Underfloor Heating

Underfloor heating serves as the main distribution system in designated areas, delivering even and consistent warmth for optimal comfort. It provides efficient operation and seamless integration within living spaces.

Complementary Emitters

Radiators or fan convectors are provided as needed to supplement heating in specific rooms. These are carefully coordinated with room layouts and are included within the itemized pricing.

Comfort & Efficiency

Even heat distribution and low flow temperatures ensure excellent comfort, fewer cold spots, and greater energy efficiency, supporting both comfort and cost savings throughout the home.

Well-Coordinated Heating Solution

This design prioritizes comfort, efficient heating, and careful alignment of emitters with room layouts for best performance. All heating elements are included in the quoted proposal pricing.

Solar PV Generation

Solar photovoltaic systems offset electricity use; pairing with air source heat pumps increases efficiency, lowers costs.

Purpose

Solar PV systems are designed to generate clean electricity on site, directly reducing reliance on grid power. By meeting a portion of the home's demand, they actively contribute to cost savings and support overall running cost reduction.

Main Components

A typical solar PV setup includes photovoltaic panels, an inverter to convert power, durable mounting structures, and a monitoring system for performance tracking.

Integration

Solar PV complements air source heat pump electricity needs, further reducing grid consumption. This integrated approach maximizes renewable energy use and delivers improved value for homeowners.

Strategic Implication

Combining solar PV with efficient heating technologies like air source heat pumps offers a robust path toward lower energy bills and sustainable living. This approach supports both performance and environmental goals.

First Fix Plumbing and Drainage Scope

Coordination of route, fittings, integration for first fix services

Pipework Routing and Installation

- Primary pipework in walls, floors
- Manifold sites for future connections
- Hot/cold feeds to all fixture zones

Drainage and Waste Management

- Waste and soil stacks routed for flow
- Future sanitary fitting integration
- Pipe gradients meet Building Control

Coordination with Structure and Other Trades

- Sequenced with framing, electrical: clear pipe routes, fitting allowances ensured.
- First fix plumbing: fewer clashes, efficient second fix for fixtures, appliances.

First Fix Coordination Value

A thorough first fix ensures reliable performance, reduces rework, and allows seamless integration of all plumbing and drainage systems. Accurate planning with other trades protects quality, maximises efficiency, and streamlines overall project delivery.

Itemized Pricing Summary

Transparent breakdown of all package costs and inclusions

First Fix Domestic Hot and Cold services, Soil & Waste

Labour, pipe, and fitting costs total £9011.25. All services to be installed as per plans provided by third party for bathrooms etc.

Hot water system to have a return pipe

Heat Pump Kit, Cylinder & Radiators First & Second Fix

The air source heat pump kit and cylinder supply is priced at £29,189.83 delivering high-efficiency renewable heating as part of the package. (Designer radiators have been included for bathrooms, Ensuites and main a landing)

Hydronic Underfloor Heating System

Underfloor heating to be supplied & installed as per manufacture designs with manifolds to be installed in Plant Room in the main dwelling, Priced at £5466.73. Power points to be provided for control system by others

All pricing includes MSC paperwork, registration, and administration. Job total value is £58,699.15 before any grants.

Current BUS Grant is £7,500.00

TOTAL COST: £51,199.15 (0% VAT)

Itemized Pricing Summary

Transparent breakdown of all package costs and inclusions

Solar PV and Battery Storage

SolaX 8.36kW system with an integrated 23.2kWh of battery storage. Complete system cost £15,031. Online monitoring, active battery management and energy usage included.

All pricing includes MSC paperwork, registration, and administration. Job total value is £58,699.15 before any grants.

Current BUS Grant is £7,500.00

TOTAL COST: £51,199.15 (0% VAT)

Grant Deduction: Boiler Upgrade Scheme (BUS)

£7,500 government grant (Ofgem BUS) applied as deduction from total project cost

Grant Applied as Deduction

A £7,500 Ofgem Boiler Upgrade Scheme grant for eligible self-build properties is directly deducted from the job total, reducing the client's upfront investment.

Eligibility Assumptions

- Self-build status of property
- Approved scheme installer
- Property meets BUS criteria
- Ofgem approval required pre-deduction

Grant Impact & Validation

The £7,500 grant reduces the amount payable by the client. Pre-grant job total: £58,699.15. Grant deduction: £7,500. Net client investment: £51,199.15 .

Grant confirmation is required at application stage before final deduction is approved.

Commercial Terms and Exclusions

Key inclusions, exclusions, and commercial terms for this proposal

01 Scope of Supply

Proposal includes supply, installation, commissioning, basic controls, system testing, and detailed handover documentation. Pricing covers all labour, pipes, fittings, materials, radiators or fan convectors, heat pump kit, and cylinder as itemized.

02 Exclusions & Responsibilities

Client is responsible for final decorative finishes, specialist electrical works beyond standard connections, structural alterations, and unforeseen groundworks. Final connections or works outside listed inclusions are excluded.

Administration, Documentation & Terms

MSC paperwork, registration, and administration are included administratively. Payment milestones and pricing validity follow standard terms; please refer to contract or request further details if required.

Implementation Timeline

Four clear phases for successful HVAC and renewable system installation.

01

Phase 1: Validation

Survey the property and confirm design requirements. Validate system layout to ensure suitability.

02

Phase 2: First Fix

Complete first fix of domestic hot and cold water supply's, main heating circuit & drainage. Install underfloor heating rough-in as required.

03

Phase 3: Installation

Install air source heat pump, hot water cylinder, with hot water return and chosen emitters. Fit photovoltaic panels & batteries where specified.

04

Phase 4: Handover

Commission and test the full system. Complete MCS paperwork and registration. Demonstrate system to client and hand over.

Risks and Mitigations

Proactive risk solutions support project success

Site and Supply Challenges

Limited access and logistical restrictions may impact installation. Delays in supply lead times for key items such as heat pump or PV components could affect project schedules if not managed early.

Approval and Coordination Risks

Planning permissions or noise considerations for ASHP placement can introduce delays. Poor coordination with other trades may result in rework or inefficiencies on site.

Strategic Solutions

01

Early Surveys and Approvals

Conduct site surveys, apply for planning and noise approvals early to identify constraints and secure permissions.

02

Proactive Procurement

Order key system components early, monitoring supply chains to mitigate lead time risks and avoid installation delays.

03

Flexible Scheduling and Coordination

Use flexible installation schedules; enforce clear site coordination to align trades, address issues.

Conclusion and Next Steps

Integrated HVAC, renewables: low-carbon comfort, transparent pricing, £7,500 BUS deduction

Delivering Efficient, Low-Carbon Comfort

Our integrated solution combines ASHP, UFH, PV and first fix plumbing to provide reliable, comfortable, and sustainable heating. With clear pricing and a £7,500 grant deduction, you benefit from performance, comfort and long-term savings.

Clear Steps to Project Delivery

01

Book Site Survey

Schedule a visit for our team to assess your property and gather final details for system design.

02

Confirm Specs & Emitters

Agree on final system specifications and confirm emitter schedule to ensure tailored comfort and efficiency.

03

Submit BUS, Schedule Start

We submit the Boiler Upgrade Scheme application, then coordinate the installation start to fit your timetable.

Thank you!

Team ready to start surveys, finalize design, mobilize install on approval.

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