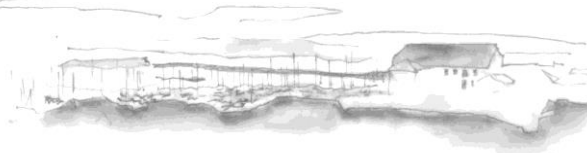


ENERGY STATEMENT

Mar. 2024

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1. Energy Report

1a. Heating and Renewable Energy Strategy

Heating

Provide Air Source Heat Pump to manufacturer's specification and design.

Heating system to be divided into two separate heating zones.

All rads to have thermostatic valves to provide zone controls with boiler having timing controls and boiler control interlocks.

All heating pipework in unheated areas to be insulated.

Heating and hot water systems to be installed and commissioned by a suitably qualified person; Submit a Commissioning Plan identifying systems to be tested and how they will be tested.

Submit a Commissioning Notice which confirms fixed building services have been commissioned by testing and adjusting as necessary in the appropriate sequence to ensure they use no more fuel and power than is reasonable in the circumstances following the Commissioning Plan.

Where completely new or replacement heating systems, or new pipework or heat emitters are installed, provide an assessment of the energy performance of the whole system, either as full records of the commissioning, or as a SAP energy performance certificate.

Ventilation (background ventilators & intermittent extract fans)

Purge ventilation:-

By opening windows and doors as shown on elevations to provide 4 air changes/ hour/ room to outside air.

Where windows opening angle is 15 - 30 degrees, opening to be 1/10 floor area of room

Where window opening angle is 30 degrees or more, then 1/20 area of room.

Extract ventilation:-

Mechanical ventilation to be specified and provided as follows:-

Kitchen - at a rate of 30 l/s (if a cooker hood) or 60 l/s if provided elsewhere in the kitchen

Utility - at a rate of 30 l/s

To bathrooms and shower rooms - at a rate of 15 l/s

To other sanitary accommodation - at a rate of 6 l/s.

Provide a 10mm undercut to all internal doors.

W.C. with no openable window - intermittent extract ventilation operated via the light switch with 15 min. Overrun.

Fan ducting to be rigid, rather than flexi duct, as short as possible and with minimal bends. It should be insulated where passing through unheated spaces such as roof voids to prevent condensation and build-up of mould/fibres. Use rigid 100mm diameter duct sheathed with a larger diameter insulated flexi-duct or similar solution as approved by BC.

Extract ventilation to be manually controlled

Fixed mechanical ventilation and any associated controls must be commissioned and tested. Notice of test results to be provided on completion.

Provide an Air Flow Rate Test Notice for intermittent/ continuous extract systems, that they operate correctly and respond to controls. Record size (equivalent area) and identify location of background ventilators and that all ductwork and terminals achieve design and performance criteria.

Whole building ventilation:-

This ventilation to be provided in all new rooms via trickle vents over window and door openings.

Open plan kitchen/ dining rooms to have min. 3 trickle vents (8000 mm² equivalent area each)

Wet rooms to have min. 5000 mm² equivalent area

Habitable rooms to have min. 8000 mm² equivalent area

Lighting

Internal lighting

Provide low energy lights to 100% of fixed light fittings.

Fixed external lighting

Any new external light fittings should have lamps with a minimum efficacy of 75 light source lumens per circuit-Watt with either manual or automatic local controls.