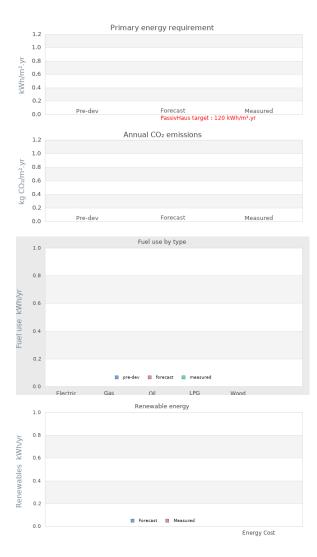


https://www.lowenergybuildings.org.uk/

Project name Passive House Standard Farmhouse, Cambridgeshire **Project summary** Bespoke Detached Family Farm HouseThis large 5-bedroom bespoke farmhouse in rural Cambridgeshire is an exemplar of energy efficient, low carbon architectural design. The property is equipped with MVHR and fitted with PV panels that make it 120% energy efficient.



Project Description

Projected build start date	01 Aug 2015
Projected date of occupation	
Project stage	Occupied
Project location	Cambridgeshire, Cambridgeshire, England
Energy target	PassivHaus
Build type	New build
Building sector	Private Residential
Property type	Detached
Existing external wall construction	Softwood frame
Existing external wall additional information	
Existing party wall construction	

Floor area	657 m²
Floor area calculation method	PHPP
Building certification	Passivhaus certified

Project team

Organisation Beattie Passive
Project lead Beattie Passive
Client
Architect Tim Chisty RIBA Architect Ltd
Mechanical & electrical consultant(s)
Energy consultant(s)

Structural engineer Canham Consulting

Quantity surveyor

Other consultant

Contractor

Design strategies

Planned occupancy

Space heating strategy

Water heating strategy

Fuel strategy

Renewable energy generation strategy

Passive solar strategy

Space cooling strategy

Daylighting strategy

Ventilation strategy Mechanical Ventilation and Heat Recovery

Airtightness strategy Passivhaus

Strategy for minimising thermal bridges

Modelling strategy

Insulation strategy

Other relevant retrofit strategies

Other information (constraints or opportunities

influencing project design or outcomes)

Energy use

Fuel use by type (kWh/yr)

Fuel	previous	forecast	measured
Electri c			
Gas			
Oil			

Fuel	previous	forecast	measured
LPG			
Wood			

Primary energy requirement & CO2 emissions

	previous	forecast	measured
Annual CO2 emissions (kg CO2/m².yr)	-	-	-
Primary energy requirement (kWh/m².yr)	-	-	-

Renewable energy (kWh/yr)

Renewables technology	forecast	measured
-		
-		
Energy consumed by generation		

Airtightness (m³/m².hr @ 50 Pascals)

	Date of test	Test result
Pre-development airtightness	-	-
Final airtightness	-	-

Annual space heat demand (kWh/m².yr)

	Pre-development	forecast	measured
Space heat demand	-	-	-

Whole house energy	/ calculation	method
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Other energy calculation method

Predicted annual heating load

Other energy target(s)

Building services

Occupancy

Space heating

Hot water

Ventilation

Controls

Cooking

Lighting

Appliances

Renewables

Strategy for minimising thermal bridges

Building construction

Rooflights U-value

Storeys Volume Thermal fabric area Roof description Roof U-value Walls description Walls U-value Party walls description Party walls U-value Floor description Floor U-value Glazed doors description Glazed doors U-value Opaque doors description Opaque doors U-value Windows description Windows U-value Windows energy transmittance (G-value) Windows light transmittance Rooflights description Rooflights light transmittance

Project images









