

Project name Fox Barn

Project summary Town Planners, Paul and Lisa Jackson gained consent for a new house designed by themselves, in November 2010. A key driver was that the design should be contextually appropriate to the village set within the Wessex Downs area of outstanding natural beauty, whilst significantly reducing their energy requirements.



Project Description

Projected build start date

Projected date of occupation 01 Mar 2013

Project stage Occupied

Project location Lower Chute, Andover, Hampshire, England

Energy target PassivHaus

Build type New build

Building sector Private Residential

Property type Detached

Existing external wall construction Oak frame

Existing external wall additional information

Existing party wall construction

Floor area	211 m ²
Floor area calculation method	PHPP
Building certification	Passivhaus certified

Project team

Organisation	Jackson Planning
Project lead	Jackson Planning
Client	Mr & Mrs Jackson
Architect	Jackson Planning (supported by Constructive Individuals)
Mechanical & electrical consultant(s)	
Energy consultant(s)	Williams Energy Design
Structural engineer	
Quantity surveyor	
Other consultant	Passivhaus timber frame design - Touchwood Homes
Contractor	Self-build

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	Paul MVHR (designed by Williams Energy).
Airtightness strategy	
Strategy for minimising thermal bridges	
Modelling strategy	
Insulation strategy	Warmcel
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
Electric			

Fuel	previous	forecast	measured
Gas			
Oil			
LPG			
Wood			

Primary energy requirement & CO2 emissions

	previous	forecast	measured
Annual CO2 emissions (kg CO2/m ² .yr)	-	-	-
Primary energy requirement (kWh/m ² .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

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

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

Rooflights U-value

Project images

