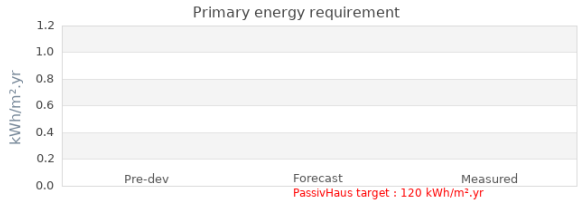
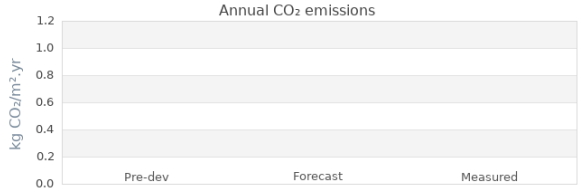
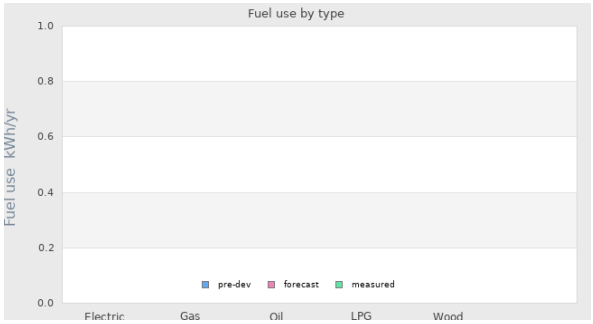
https://www.lowenergybuildings.org.uk/

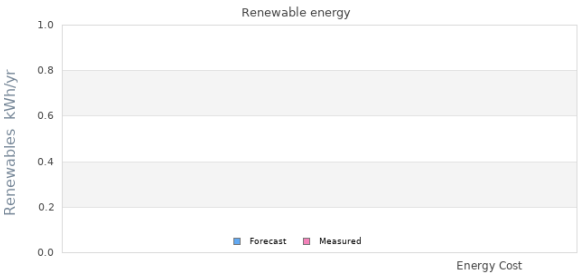
Project name Energy Efficient Social Housing, Telford, Shropshire

Project summary 4 modern homes built to Passivhaus standard in Wrekin using the Beattie Passive build system. These properties are extremely energy efficient and sustainable, so residents benefit from low energy bills and a reduced carbon footprint.This development is an important part of an innovative and ambitious project. By training more people and providing more housing, including environmentally efficient homes, as well as boosting the local economy, we are addressing a number of challenges at the same time. Its an exciting initiative and The Wrekin Housing Group is proud to be at its forefront.









Project Description

Projected build start date	01 Jan 2019
Projected date of occupation	01 Jan 2020
Project stage	Occupied
Project location	Telford, Shropshire, England
Energy target	PassivHaus
Build type	New build
Building sector	Public Residential
Property type	Mid Terrace

Existing external wall construction	Softwood frame
Existing external wall additional information	
Existing party wall construction	
Floor area	272 m²
Floor area calculation method	PHPP

Project team

Organisation	Beattie Passive
Project lead	
Client	Wrekin Housing Association
Architect	
Mechanical & electrical consultant(s)	
Energy consultant(s)	
Structural engineer	
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
Airtightness strategy
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
Electric			
Gas			

Fuel	previous	forecast	measured
Oil			
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

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	0.11W/m² K
Walls description	
Walls U-value	0.11W/m² K
Party walls description	
Party walls U-value	
Floor description	
Floor U-value	0.09W/m² K
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