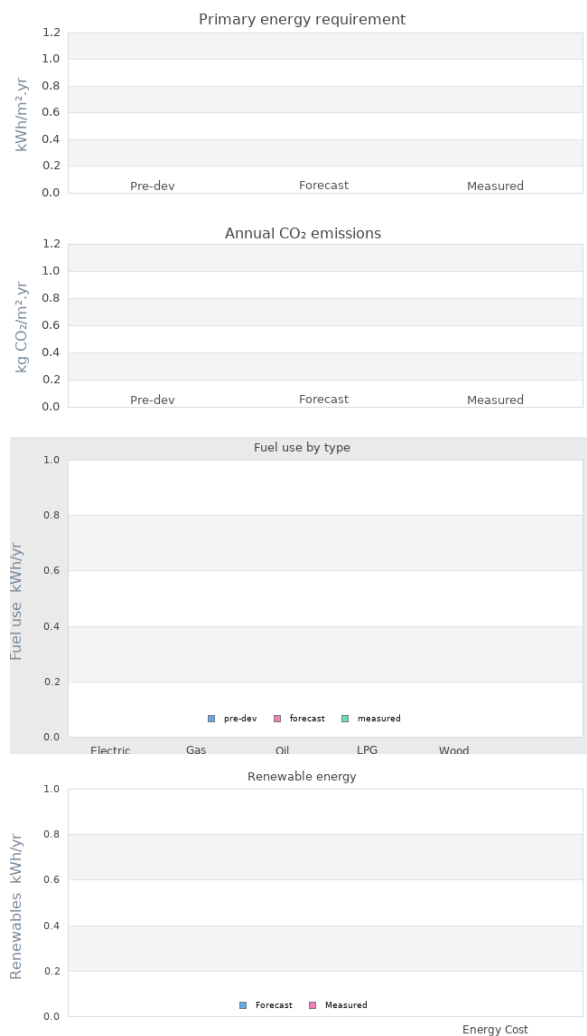


Project name The Barrel Store

Project summary The latest incarnation of a historic stone building in the Cotswolds, this brewery building has been converted to an exceptionally executed EnerPHit Youth Hostel operated by New Brewery Arts. The Barrel Store has 14 rooms and can accommodate 40 guests. It is rare for such a heritage building - unique in many respects - to be upgraded to EnerPHit. The generous entrance hall has a top-lit winding oak staircase lined with ash boarding, with a common lounge and kitchen to one side at ground floor level, and to the other side, laundry, linen store, disabled persons adapted bedroom and shower room. At first floor level are the other bedrooms, with 30 bedspaces.



Project Description

Projected build start date

Projected date of occupation 03 Mar 2016

Project stage Occupied

Project location Cirencester, Gloucestershire, England

Energy target EnerPHit

Build type Refurbishment

Building sector Commercial

Property type Detached

Existing external wall construction	Stone
Existing external wall additional information	Internal timber frame with wood fibre insulation
Existing party wall construction	
Floor area	256 m ²
Floor area calculation method	PHPP
Building certification	Passivhaus certified

Project team

Organisation	
Project lead	
Client	New Brewery Arts
Architect	Potter & Holmes Architects
Mechanical & electrical consultant(s)	
Energy consultant(s)	Greenguage Energy and Services Consultants
Structural engineer	E&M West Structural Engineers
Quantity surveyor	
Other consultant	
Contractor	DJP Construction

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			

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

