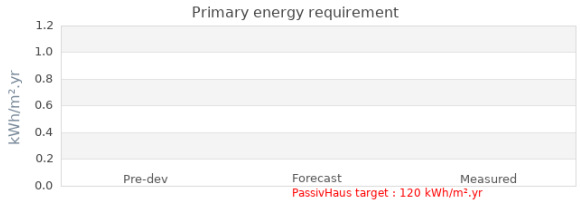
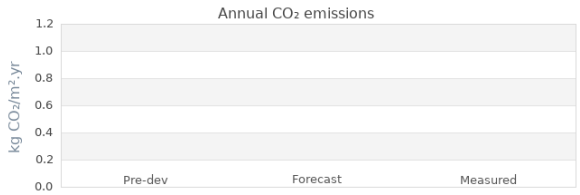
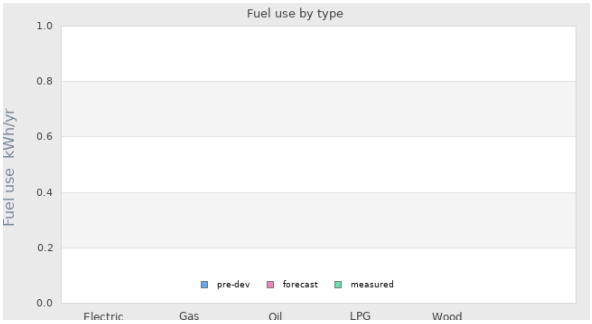
https://www.lowenergybuildings.org.uk/

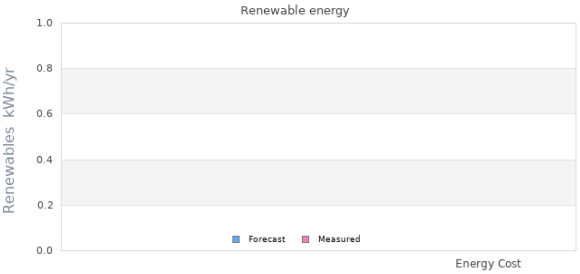
Project name Wilkinson Primary School

Project summary WINNER of the UK Passivhaus Awards 2015 - Wilkinson Primary School is a 2nd generation Passivhaus primary school designed by Architype. Taking the brief beyond the necessary requirements, Architype addressed the schools future needs as a 21st century learning environment, introducing a number of innovations to improve the performance and sustainabilityof the building.









Project Description

Projected build start date	
Projected date of occupation	
Project stage	Occupied
Project location	Wolverhampton, West Midlands, England
Energy target	PassivHaus
Build type	New build
Building sector	Public
Property type	Detached
Existing external wall construction	
Existing external wall additional information	

Existing party wall construction	
Floor area	2494.3 m²
Floor area calculation method	PHPP
Building certification	Passivhaus certified

Project team

Organisation	Wolverhampton City Council
Project lead	
Client	Wolverhampton City Council
Architect	Architype
Mechanical & electrical consultant(s)	E3 Consulting Engineers
Energy consultant(s)	Elemental Solutions
Structural engineer	Price & Myers
Quantity surveyor	
Other consultant	Certifier - WARM: Low Energy Building Practice
Contractor	Thomas Vale 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			
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

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