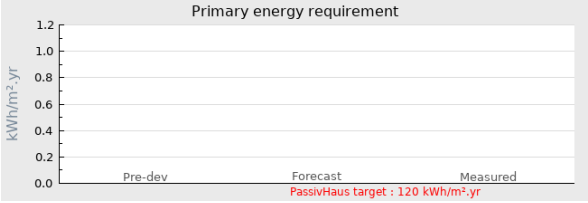
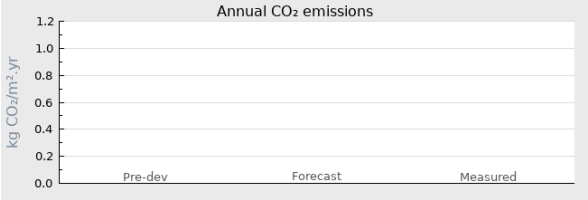
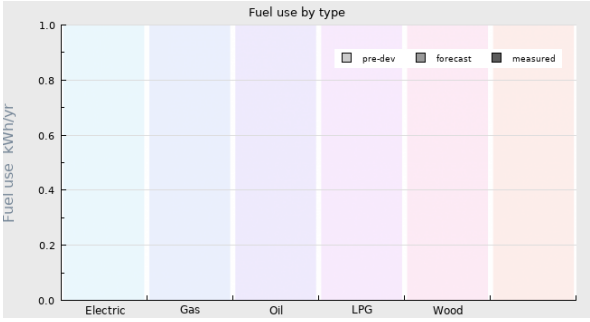
http://lowenergybuildings.org.uk

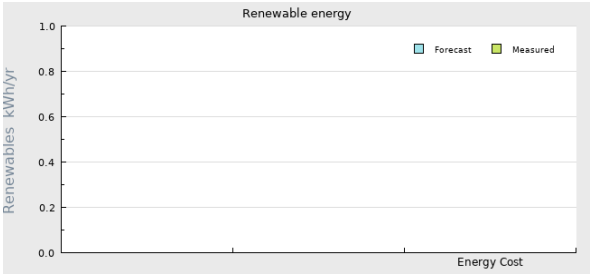
Project name Dormont Estate

Project summary The Dormont Estate project was one of the very first projects for the Scottish Passive House Centre.Dormont estate is a unique project in that it provides a small scale Passive House development which is available for rent from a private landlord. This has been done through the Scottish Governments Rural Homes for Rent pilot scheme. This is very special, not only because it is one of the first of these types of developments in the U.K. but because it will provide a working example of how this type of housing scheme could be used on a wider scale within Scotland and the United Kingdom.









Project Description

Projected build start date	
Projected date of occupation	01 Jul 2011
Project stage	Occupied
Project location	Lockerbie, , Scotland
Energy target	PassivHaus
Build type	New build
Building sector	Private Residential
Property type	Mid Terrace

Existing external wall construction	Other
Existing external wall additional information	Timber frame
Existing party wall construction	
Floor area	88 m²
Floor area calculation method	PHPP
Building certification	Passivhaus certified

Project team

Organisation	
Project lead	
Client	JA Carruthers
Architect	White Hill Design Studio - David Major
Mechanical & electrical consultant(s)	
Energy consultant(s)	
Structural engineer	
Quantity surveyor	
Other consultant	Scottish Passive House Centre
Contractor	Campbell Construction Group

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/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