



CASE STUDY: HOUSING  
PEN MORFA





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### Sustainability Strategy

Environmentally responsible methods of construction and a palette of sustainable, locally sourced materials will be chosen wherever possible, in pursuing a design that is both energy efficient and environmentally conscious.

Considering the orientation, micro-climate and built form has allowed the development to benefit from passive solar gain, natural light and wind protection, which will all contribute towards reducing the energy demand.

The site location, proximity to local amenities and good public transport links means that the Pen Morfa site is ideal for housing due to social, economic and general functional reasons.

Sustainable features such as solar photovoltaic panels, water butts and composting facilities, along with generous garden spaces promote a more sustainable way of living.

### Sustainability Overview

- Roof-mounted photovoltaic solar panels
  - External drying areas to minimise energy usage
  - Water butts and composting facilities provided in all garden areas
  - Low maintenance robust facing materials to reduce running costs
  - Energy efficient heating and hot-water systems
  - 100% low energy light fittings
  - Materials; green guide rated at 'A' +
  - Locally sourced materials where possible
  - Planting to improve site biodiversity
  - Lifetime Homes & DQR compliant
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# CASE STUDY: HOUSING

## PEN MORFA

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**Name of Project**

Pen Morfa

**Date Completed**

On site Spring 2017

**Project Cost**

£700,000 approx.

**Building Type**

Affordable Housing

**Location**

Tywyn, Gwynedd

**Client**

Cartrefi Cymunedol Gwynedd Cyf

**Main Contractor**

Chesworth Brothers

**Environmental Performance**

Code for Sustainable Homes Level 3+

**Building Overview**

Pen Morfa is a new housing development of five affordable homes in the seaside town of Tywyn. The new homes are situated on un-used built up ground at the end of the existing Pen Morfa housing estate and introduces modern affordable housing with better space standards to support the local need.

The scale and layout of the scheme is designed to be sensitive to the local context and create a positive streetscape that corresponds with the existing surrounding housing estate and the adjacent railway line. An improved amenity space to the southern end of the houses with new planting will increase the biodiversity and ecology of the site.

Orientation has been carefully considered, with living rooms to new dwellings orientated to the south where possible to benefit from passive solar gain and maximise the benefits of natural light, reducing the need for artificial lighting. Each house has direct access to a private outdoor garden space and overlook their own car parking space to act as natural surveillance.

The homes are a mix of an off-white render finish combined with dressed stone gables which are sympathetic to the local building style. The scheme is located on slightly elevated land and due to the level change, ramps are provided to create level access to each property, while there are a number of more direct stepped access routes from the car parking spaces to the front doors of each dwelling.

The scheme consists of 5No. 4 person, 2 bedroom homes.

