



**The Brecon Mountain Railway** is a tourist railway with steam locomotives on the south side of the Brecon Beacons. The line runs along part of the trackbed of the northern section of the former 4 ft 8 1/2 in (1,435 mm) standard gauge Brecon and Merthyr Railway from Pant to a new station at Torpantau, via Pontsticill and Dolygaer, a total of about 4.5 miles (7 km).

## Background

The Brecon Mountain Railway parks their steam locomotives in a purpose built building which includes a workshop and viewing gallery.

The light levels were very poor and staff needed additional lighting. The public's view and experience was also affected.

Electricity costs were high due to the old, inefficient lighting and maintenance was also a safety concern due to height and floor configuration.



## Solution

Brecon Mountain Railway (BMR) selected INECO Energy to upgrade their lighting within their engineering workshop and internal steam train parking sheds. The design had to consider the challenges delivered by the heat and vapour from the steam trains as they were tested on and also while in full steam mode when pulling out or parking.

The survey, design and installation environment included floors with different levels, pits and gradients to design, repair and maintain the steam trains. Large cranes also provided a challenge to ensure quality and consistency of lighting. Live railway tracks also had to be considered. Detailed Health & Safety planning for the installation ensured zero disruption to BMR's operation and a safe working environment for all staff.

Light levels were significantly increased from 200lux to 750lux and a full 5 years parts and labour warranty was provided with the specialised lighting.

INECO helped to secure grant and loan funding from Carbon Trust Green Business Fund for BMR, so the capital cost was significantly reduced.

## Results

Energy Savings  
**69%**

Carbon Savings  
**221 tonnes**

Financial Savings  
**£ 181,358**

*"Light levels are so good that we don't need additional lighting and our visitors can see all the activity within the workshop. Our safety risk is also improved because we won't have to get up and replace the bulbs every year".*

Director, Brecon Mountain Railway