

# Shared Learning - Making the most of the sunshine at Gade Valley Viaduct.

OSBORNE

As the second longest orbital road in Europe, maintaining the M25 is no small task. It is therefore vital for M25 projects to lead by example in sustainability and the environmental impact.

*"From Solar panels on the offices to how they process the sewerage on site, Osborne has brought new and interesting alternatives to more traditional ways of working on site..."*

Colin Smith - Connect Plus Services

**PROJECT** Gade Valley Viaduct

**CUSTOMER** Connect Plus Services

**LOCATION** Kings Langley (M25)

**CONTRACT** 025294

**VALUE** £25,000,000

# Issue

With a large proportion of construction work taking place in remote locations, mains electricity is not always an efficient solution. As a result, the majority of power tends to be come from diesel generators. The emissions released from burning fossil fuels, particularly diesel, significantly impacts our environment.

How could we reduce emissions and reduce our impact on the environment?

# Solution

After extensive research the Osborne Site team implemented Solar Panels together with a Solatainer® to replace a diesel powered generator. The 20kW Solatainer® system, made from a once 20ft shipping container mounted with PV array, provides an off-grid power supply from renewable-power and storage.

In a bespoke design to install solar panels directly to the site cabins, the 16 panel array provides power directly to the site office. This sustainably created solution is helping the site to minimize our reliance on diesel. It is also perfect for isolated locations and for areas of environmental and ecological importance.

The solar panels at the Gade site power the site office with the Solatainer® powering all the lighting across the 400m viaduct structure. Running for up to 12 hours on one charge, it is proven to decrease Carbon Dioxide emissions by 190kg a day. With improving technologies they will become increasingly more economic as a solution.



# Outcome

By purchasing the installation it can be reused on future Connect Plus sites. Shared learning has benefited two Network Rail River Axe Valley Flood Mitigation Schemes which are in a SSSI and Special Area of Conservation.

## 3phase Kings Langley

Last update: 5 minutes ago

System overview

Consumption Solar Battery

