

# ROYAL BORDER BRIDGE HYBRID GENERATORS

# SUSTAINABLE INNOVATION

Due to the length of this project, in addition to the designated sites of Special Areas of Conservation in proximity to the works, it is important to take into account our impact on the local environment. Therefore, throughout the works at ECM7 Royal Border Bridge, we are making use of hybrid generators in order to improve our environmental footprint. The eco generators will use battery charge to reduce our carbon emissions, as well as reducing the cost of fuel on site.

The HUSHH Pod 30/45 (supplied by Mobile Mini/Adlington Welding Supplies) aims to reduce both harmful emissions and noise pollution, meaning it works as a powerful, silent battery power unit, with a 30kw three phase inverter and 45kwh of useable stored power. Noise pollution was proven to greatly reduce overnight, as the HUSHH pod generator was programmed to only run during daytime working hours - automatically shutting down after a shift and only starting up again in the morning or when the battery pack needs topping up.

# **PROJECT SCOPE**

ECM7/195 Royal Border Bridge is a 28-span masonry arch viaduct, which carries two no. railway tracks over the River Tweed. The structure is Grade I listed.

It has been identified that the structure is suffering from defects such as loose brickwork, open joints, parapet leaning/bulging, fractured pattress plates and other minor works areas typical of masonry.

The project aims to address the observed defects by undertaking general masonry repairs to the affected areas. The repairs will prevent further deterioration which could lead to an increase in severity of defects and more extensive and costly repairs. It is envisaged that the work will provide a 30-year maintenance free period.





# **STORY**

### THE STORY WAY

There was a 59% reduction in run time and fuel consumed over a 30-day period (Feb – March).

General waste from welfare units has also been sent off site for recycling, allowing us to achieve our target of 99% diversion of waste from landfill.

Early liaison with the Railway Heritage Trust, where Story will be volunteering to prep, paint and re-install a 'Royal Border Bridge' sign to the north end of the bridge on the down side of the line by the remnant castle wall, where there is a good, visible viewing point.

# **FEEDBACK**

"Using the hybrid generator has had multiple benefits, including reduced running time and a massive reduction in fuel and cost saving as a result. The generator has also helped us out for night shifts - majorly reducing our noise output and running the compound LED lights. The hybrid generators are more to hire but the savings on fuel cost more than balance it out."

Robin Stewardson, Site Manager, Story Contracting

# 59% REDUCTION in run time

£306 SAVING IN fuel costs

8979kg SAVING OF

