

Case Study

Balfour Beatty

Background

Balfour Beatty was awarded a £75 million contract as part of a major five-year, £355 million Highways England improvement scheme. A 1.5 kilometre site in the centre of Hull (Castle Street).

The A63 was designed to improve access to the port, congestion, road safety and connections between the city centre and recreation facilities.

By deploying sustainable products across the A63 Improvement Scheme - Balfour Beatty could achieve incredible results, including a major reduction in diesel usage and CO₂e emissions.

Challenge

An ancient 300-year-old burial site had to be relocated carefully and respectfully to another site. Balfour Beatty deployed the industry's first electric mini excavator – saving up to 70% in fuel used.

Three electric excavators needed to be recharged each day, including powering the lights and the pump keeping the tent lit up and raised.

Balfour Beatty wanted to reduce the noise and emissions on this protected site. However, there was no mains power on site.

A diesel generator running 24/7 was unsuitable for operating in an enclosed space and would eliminate the sustainable and environmental benefits gained by the project so far.

By deploying sustainable products across the A63 Improvement Scheme - Balfour Beatty have achieved incredible results, including a major reduction in diesel usage and CO₂e emissions.

The following savings were calculated from replacing a 40kVA diesel generator with a Prolectric ProPower Solar Hybrid Generator, which ran 24 hours, 7 days a week saving 2.7 litres per hour for 50 days.

Carbon Savings
 7,000kg of CO₂e

Fuel Savings
 2,527 litres of fuel

Zero Fuel Hours
 78%

Solar Power Generation
 210 kWh



The Solution

Our revolutionary ProPower Solar Hybrid Generator provided an off-grid temporary power solution.

Solar powered meant a reduction in emissions and fuel, reduced noise, and less maintenance was needed.

No mains power meant no trenching was required – meaning a fully off-grid power solution.

The generator is fixed to a trailer making it mobile and easily deployable. EV charging can be added, providing one of the many customisable features.

The ProPower is favourably used for welfare and site cabin power.



The Prolectric ProPower is an off-grid sustainable power solution that has been specially designed to deliver temporary power to various sectors sites.

The Result

By replacing diesel generators and upgrading to Prolectric's sustainable solar hybrid generators - Balfour Beatty achieved incredible results - including a major reduction in noise pollution, diesel usage and CO₂e emissions.



Delivered fully charged and set up onsite with a full distribution board by the Prolectric team.

Why choose Prolectric?



Reduced Emissions
Offers huge CO₂ emissions benefits vs traditional diesel generators.



Reduced Noise
Silent overnight power from battery storage, ideal for urban & night projects.



Advanced technology
Remote control, monitoring and reporting capabilities.



Reduced Fuel Usage
The ProPower can cut fuel usage by up to 90%.



Minimal Maintenance
Reduced generator run-time means less maintenance.