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Solatainer®

Case Study

A brief introduction to the **Solatainer®**

- 25 kW system
- 16 kVa generator
- 10 kVa inverter
- 8kWh battery storage
- Distribution built in

- 1 unit = 30 – 40 kVa generator
- 2 units = 60 kVa generator
- 3 units = 80-100 kVa generator

The Kent MFF Challenge

- Power a full site using a more efficient and green product
- Find a hybrid solution in the 10-60 kVa generator range
- Reduce costs, emission's and NOx
- Reduce noise from generators

NetworkRail

COSTAIN

South East Multi-Functional Framework
A collaboraton between BAM Nuttall, Costain and Network Rail

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The Solatainer® Solution

- Smaller (back up) diesel generator - to run during peaks, and to charge batteries
- Battery storage - store excess solar power and run site at night
- Solar PV system - power the site and charge batteries
- Power management system
- **All neatly packaged in a single unit**

The Solatainer® Benefits

- Over 95% of energy supplied by solar or batteries during 30 Day period. (720 Hours)
- The site was silent for over 95% of the time (684 Hours +)
- 10 day silent emission free streak
- No servicing of generator
- Reduction of over 9 tonnes CO_2 Eq
- Greatly reduced fuel usage
- Average weekly saving of over £200

Average Weekly Comparisons

1-8-17 to 30-8-17

	Original 45 kVA	Solatainer	Total Savings
Hire Cost of Equipment	Circa £150 UL 45 kVA + Tank	£230 No distro model	-
Fuel Cost (@50p) Fuel Used	£336 168h x 4litre = 672 litre	£15 10h x 3 litre = 30 litre	-
Total (H+F)	£450 pw	£245 pw	**£205 per week**
Kg CO_2 Eq	1982 Kg CO_2 Eq	88.5 Kg CO_2 Eq	**1893 Kg CO_2 Eq**
Silent Hours	0	158	**158 Silent Hours**

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