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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 Eight$_2$O Challenge

- Power a full site using a more efficient and green product
- Replace a conventional 100 kVa generator with multiple units across larger site (12 Cabins)
- Reduce noise, costs, emission's and NOx
- Modulize the larger site into smaller manageable zones

eight$_2$O

Thames Water

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The Solatainer® Solution

- Smaller (back up) diesel generators to run during peak loads and to charge batteries.
- Battery storage to store excess solar power and run site at night.
- Solar PV system to power the site and charge batteries.
- Power management System
- Zoned site: four cabins per **Solatainer®**

The Solatainer® Benefits

- Over 85 % of energy supplied by solar or batteries during 60 Day period. (1440 hrs)
- On average the site was silent for over 90% of the time
- No servicing of generator
- Reduction of over 36 tonnes CO_2 Eq
- Average weekly saving of over £300 per week
- 96% recyclable product

Average Weekly Comparisons

1-8-17 to 30-9-17

	Original 100 kVA	3no Solatainer	Total Savings
Hire Cost of Equipment	Total £345 UL 100 kVA £220 Tank £30 125 amp Dist Board £95	Total £780 1no Solatainer £250 Tank £30	-
Fuel Cost (@50p) Fuel Used	£756 168h x 9litre = 1512 litre	£49.50 45h x 2.2 litre = 99 litre (15hrs each)	-
Total (H+F)	£1136 pw	£829.50 pw	**£306.50 pw**
Kg CO_2 Eq	4.46 Tonnes CO_2 Eq pw	292 Kg CO_2 Eq	**4168 Kg CO_2 Eq**
Silent Hours	0	153	**153 Silent Hours**

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