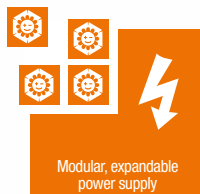# Solar Pod

Sustainable Power Supply

DESIGNED & BUILT IN THE UK

Static / Mobile
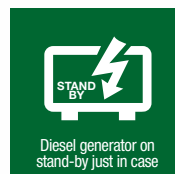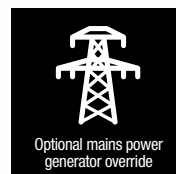
Harvest & store solar energy to minimise harmful emissions

Modular, expandable power supply

Diesel generator on stand-by just in case

Optional mains power generator override

Built for a tough life Unique patented, high strength, composite panels

AJC EasyCabin

Sustainable power is easy.

DESIGNED & BUILT IN THE UK

Solar Pod
Sustainable Power Supply

✓ Reduce CO$_2$ emissions
✓ Reduce Noise
✓ Reduce Fuel costs

Plug & Play
Modular, expandable power supply

Large extendible sliding solar panels

Integral backup diesel generator

Large battery bank power storage

Optional Mains power generator override

LOW
Reduce local site noise levels

Easy container transport 3up 40ft high cube

Autosmart
Just add fuel. Fully automatic start/stop

Ecosmart technology
Intelligent, efficient power management

Optional Integral cooling systems for hot locations

Easily add a sustainable power supply to remote site locations.

The Solar Pod (patent pending) significantly reduces carbon emissions and fuel costs associated with power provision by harvesting solar energy to provide free power to your sites.

Complete with a backup generator, the built in Ecosmart system efficiently manages the power supply between solar PV, battery bank and generator.

Our Autosmart system ensures that all the end user needs to do is switch on and use.

There are 4 model options with various power outputs and storage capacity.

Solar Pod 15 kVA
Solar Pod 30 kVA
Solar Pod 60 kVA
Solar Pod 60 kVA 3 Phase
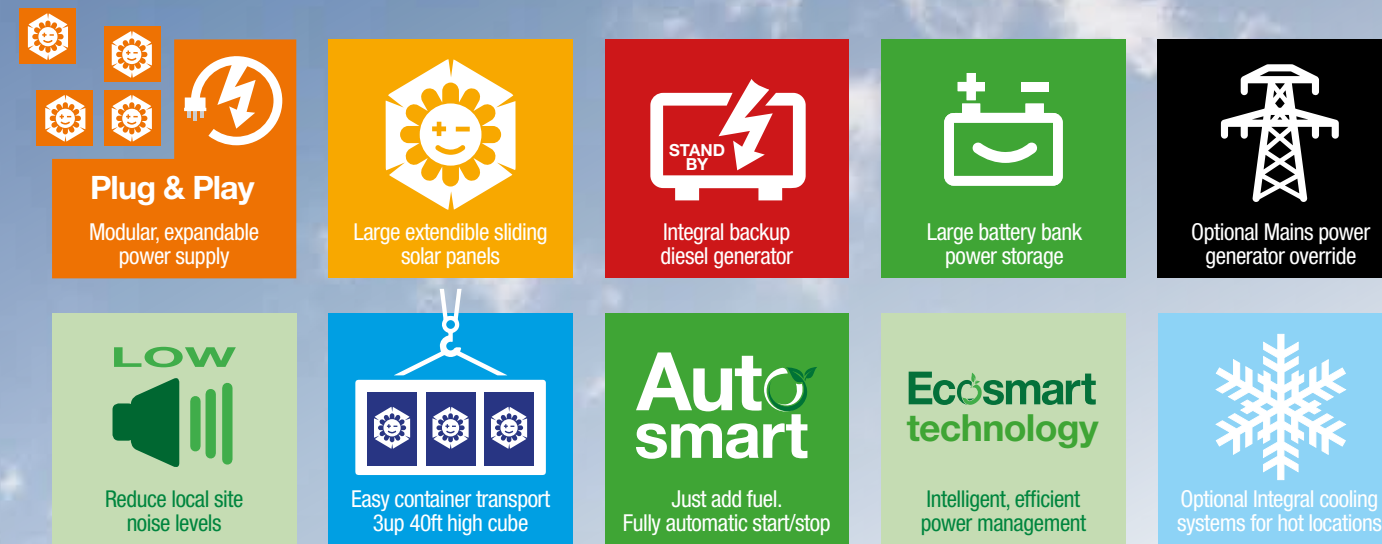
A responsive, modular power source.

For large site set ups, multiple Solar Pods can be used. Modularise the site into segments which will optimise the performance of the Solar Pod.

Add more solar capacity to your setup by plugging in extra third-party solar panels (of correct voltage) directly to the Solar Pod.

Remove the need for the integral backup generator by plugging directly into the local power grid.

The local power grid is then used as the backup power supply.

Maximise solar input to your existing site accommodation by swapping the site generator with a Solar Pod. Further energy savings can be made with Solar Smart Site products (Power Pod & Solar Smart Panels).

The Solar Pod has been in use since October 2018 across sites in England & Scotland.
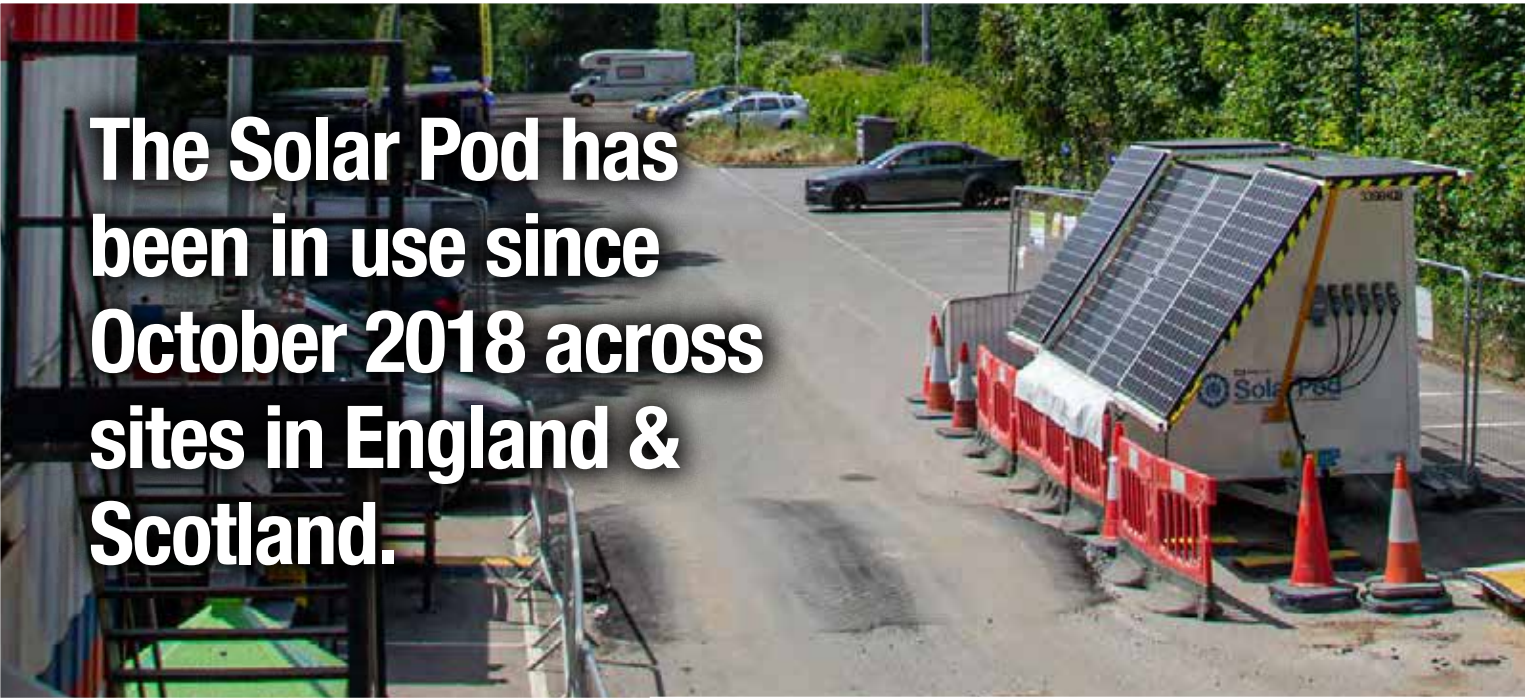
Case studies

Here are 2 examples of how the Solar Pod performed in the usual imperfect weather of the UK.

Site location
Essex UK

SUMMER & WINTER LONG TERM USE

TIME
1 Year

SITE USAGE
12 hours per day / 5 days a week

SITE SETUP
1x Solar Pod

2+1 WC   OFFICE X 3   MEETING ROOM   CANTEEN

The Solar Pod has been on site for 1 Year, and the standby generator has only ran for 1,202 hours across the year. An average of 23 hours per week. Reading the telemetry data, we are able to show that frequently, the site is powered silently and emission free either by direct solar or energy stored in the batteries.

	50-60kVA Diesel Generator	1x Solar Pod 30
TOTAL CONSUMPTION	9,128 kWh	9,128 kWh
TOTAL SOLAR GAIN	0	1,701 kWh
POWER FROM BATTERIES	0	4,590 kWh
FUEL USED	Fuel Projected 13,836 Litres	Fuel actual 3,725 Litres
TOTAL FUEL COST	@ £1.53 per ltr = £21,169	@ £1.53 per ltr = £5,699
GEN HOURS	4,488 hours	1,202 hours
TOTAL LOCAL CO$_2$ PRODUCED	38,163 kg	10,273 kg

Solar Gain **1,701kW**

Fuel saved **10,111 Litres £12,470**

Silent running hours 82% Power from Solar / Batteries only

LOW CO$_2$ Carbon saving* 28 Tonnes

Equivalent to planting 1,394 Trees to absorb this amount of CO2 over a year.

Site location
Osea Island UK

SUMMER TIME HIGH SOLAR GAIN

TIME
1 Month (August Summer Time)

SITE USAGE
24 hours per day / 7 days a week

SITE SETUP
9x Solar Pod 30's powering 30x Snooze Pods

The 9 Solar Pods provide power to 30 Snooze Pods (60 bed modular hotel with full hotel room facilities) which would normally be connected to an 800kVA sized generator. Each Snooze Pod is being used 24/7 which the profile below shows. The solar gain and battery usage was so high, the generator has only activated 7% of its time, this is a huge diesel, noise and CO$_2$ emission saving, as below shows.

Ordinarily, the temporary accommodation on this site would be powered by a 800kva Diesel Generator, and would run for 168 hours a week.

	800kVA Diesel Generator	9x Solar Pod 30
TOTAL CONSUMPTION	3,547kWh	3,547kWh
TOTAL SOLAR GAIN	0	1,929kWh
FUEL USED	Fuel Projected 48,357 Litres	Fuel actual 602 Litres
FUEL COST	@ 1.53 per ltr = £73,986	@ £1.53 per ltr = £921
GEN HOURS	100% running time	376 Total 7% running time out of possible 5,184 hours
TOTAL LOCAL CO$_2$ PRODUCED	133,341kg	1,660kg

Solar Gain **1,929kW**

Silent running hours 93% Power from Solar / Batteries only

LOW CO$_2$ Carbon saving* 132 Tonnes

Equivalent to planting 5,890 Trees to absorb this amount of CO2 over a year.

Connection examples

Solar Pod
Sustainable power supply

Single Solar Pod + standard cabins

Canteen

Office

Drying / Changing

Solar Light

Solar Light

Toilet block

Office

Solar Light

Hybrid-electric vehicle

Solar Pod

Hybrid-electric vehicle

Solar Light

Modular, expandable power supply

Mains power generator override

Solar panel input
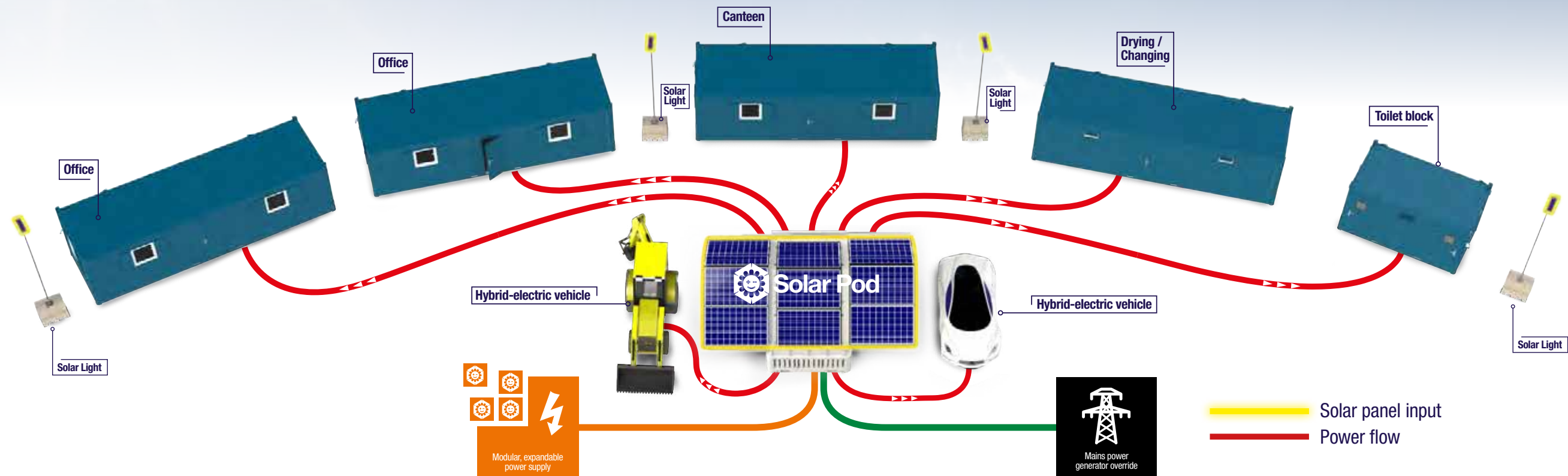
Power flow

Solar Pod + additional solar

Solar Smart panels generate power direct to each cabin, spare power flows back to the Solar Pod batteries.

SHARED POWER

BACKUP POWER

Solar Pod

Solar Smart

Solar Smart

Solar Smart

Solar Smart

Solar Light

Solar Light

Sleeper 22

Sleeper 22

Sleeper 22

Sleeper 22

Sleeper 22

Solar Light

Solar Light

Solar Light

Modular, expandable power supply

Mains power generator override

Solar panel input

Backup power

Shared solar power
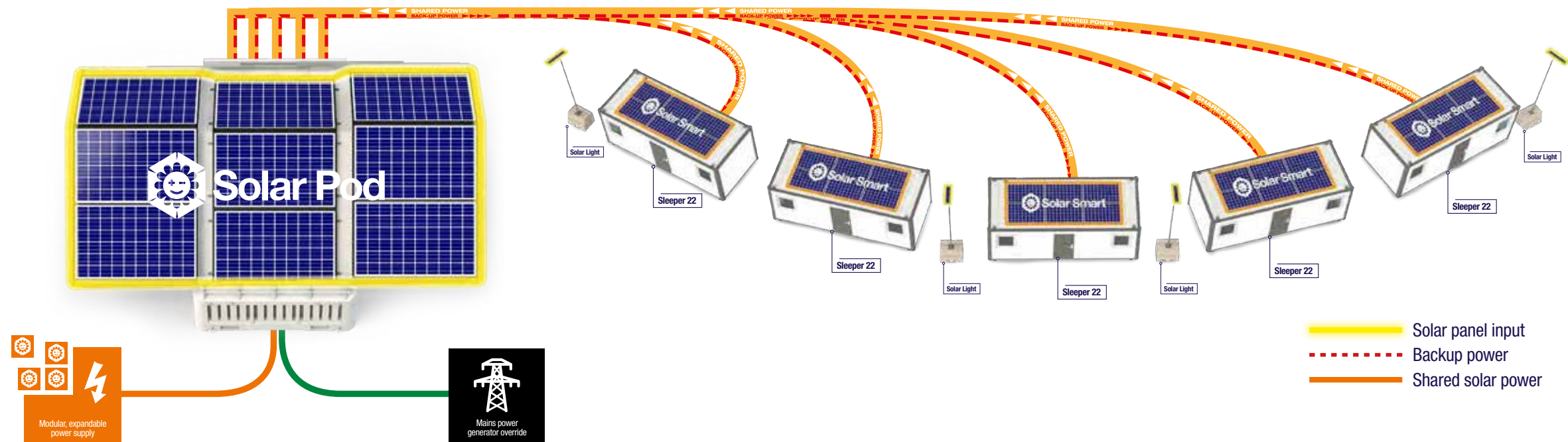
Technical Static & Mobile

Sustainability

- Solar hybrid technology for sustainable free energy
- Automatic back up generator start/stop technology for economical fuel usage
- Lower fuel consumption
- Low CO2 emissions
- Super silent backup generator
- ZERO Fuel Potential on low energy demand sites. Up to 100% of power demands can be met by solar & batteries alone.

Facilities

- Plug and play sockets: Multiple 32amp sockets / 1x 125 amp socket and a choice of other power output configurations.
- Large fuel tank
- Remote diagnostics from your phone or laptop. Local WiFi & 4G mobile data connection.

Security / Safety

- Triple dead-locked vandal resistant high security door
- Fully galvanised robust exterior with high impact resistance
- Temperature monitoring
- Carbon Monoxide detector
- Wing braces to prevent damage in high winds

Optional / Extras

- Optional integral auto-cooling system, for use in hot climates
- Optional Dust & Sand protection on all external ventilation
- Optional local mains grid connection / generator override input socket
- Extension socket for extra third party solar panels OR another Solar Pod OR Power Pod OR Solar Smart Panels

Solar PV Panels
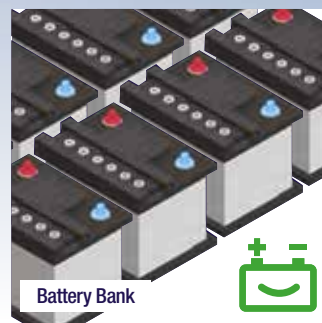
Battery Bank

Cabin security - Deadlocks all round

Bevelled corners and full galvansied exterior

External power outputs

Link up sockets

Extendable solar panel wings

Remote telemetry: Dashboard

Remote telemetry: Example data

Static

Large battery bank and power management systems

Automatic back up generator start/stop technology for economical fuel usage

3200mm

2518mm

5298mm Open

2250mm Closed

- Fit 3up Solar Pods inside a 40ft High Cube shipping container
- External reinforced lifting braces to protect panels
- Low level lifting points and cable guides
- Forklift pockets all sides

Easy shipping - fits into a High Cube container

Lifting eyes and cable guides

Mobile

Large battery bank and power management systems

Automatic back up generator start/stop technology for economical fuel usage

3200mm

3050mm

6400mm Open

3375mm Closed

- AL-KO fully galvanised double axle chassis & running gear
- Fully braked, with balanced weight distribution for stable towing
- 4 corner steadies, fully adjustable
- Galvanised access steps for plant room

Al-Ko braked chassis & running gear

Easy to tow

Specification

		Solar Pod 25 Static & Mobile	Solar Pod 30 Static & Mobile	Solar Pod 60 Static Only	Solar Pod 60 3P Static Only
OUTPUT POWER	Prime Rating @ 25°C	85Amp / 25kVA / 20kW	100Aamp / 30kVA / 24kW	200Amp / 60kVA / 48kW	125Amp 3P / 60kVA / 48kW
	AC Output Voltage	50Hz, 230V			
	Output Connections	5 x 32A single phase IP67 CEE Socket outlets, RCBO protected OR 1 x 125A single phase IP67 CEE Socket outlet, RCBO protected.	5 x 32A single phase IP67 CEE Socket outlets, RCBO protected OR 1 x 125A single phase IP67 CEE Socket outlet, RCBO protected.	10 x 32A single phase IP67 CEE Socket outlets, RCBO protected	1 x 125A three phase IP67 CEE Socket outlet, RCBO protected OR 5 x 32A single phase IP67 CEE Socket outlets, RCBO protected AND 1 x 125A single phase IP67 CEE Socket outlet, RCBO protected.
	Additional output connections	16A			
INPUT POWER	Solar panels (on board)	4.5kVA / 3.6kW			
	Solar panels (plug & play)	Additional up to 8.75kVA / 7kW (running at 45 to 65 volts)			
	Generator backup power	17.3kVA / 13.8kW	25kVA / 19.8kW	35kVA / 28kW	
	Generator Standard (EU) 2016/1628	N/A	STAGE V (EU) 2016/1628		
	Fuel Types	Standard Diesel: EN590:96 BS 2869 - A1 or A2 Alternative fuels from ONLY recognised/authorised suppliers: Bio Diesel B5 EN14212 / HVO EN15940 / GTL EN15940 / BTL EN15940			
	Fuel Consumption	**Fuel is only used when the generator is active.** Generator is constantly in AUTO and only activates when required; battery charging and/or high load spikes. NOTE: Using alternative fuels can reduce generator power rating by 4-8% 100% load: 5.6 Litres per hour 75% load: 4.6 Litres per hour 50% load: 2.8 Litres per hour 25% load: 1.4 Litres per hour	100% load: 6.2 Litres per hour 75% load: 5.0 Litres per hour 50% load: 3.1 Litres per hour 25% load: 1.6 Litres per hour	100% load: 7.8 Litres per hour 75% load: 6.1 Litres per hour 50% load: 4.2 Litres per hour 25% load: 2.5 Litres per hour	
	Fuel tank capacity	400L			
	Grid Connection (optional)	20kW	20kW	60kW 3 Phase	
STORAGE	Type	AGM (Absorbent Glass Matt)			
	Capacity @ 25°C	20.5kW	20.5kW	41kW	
	Charge Time (hours approx)	3	3	4	
	Service life (years)	> 5	> 5	> 5	
CONTROL	System Controls (All models)	**Remote telemetry connection via local WiFi or 4G internet connection.** **Controlled by App. (Android or Apple)**	• Low fuel level alarm & monitoring. • Generator control; load management, optimised quiet hours and scheduled runs. • Enhanced system management. • Ability for users to program custom logic sequences. • System commissioning/decommissioning assistants. • Troubleshooting assistants & diagnostics.	• User friendly graphical performance & event logs. • Enhanced environmental control. • Remote communication, monitoring & control.	
	Soft start timer	24/7 manually operated timer with soft start functionality to prevent overloading			
	Generator telemetry (optional)	• Monitoring. • Enhanced system management. • Generator control.	• Troubleshooting assistants & diagnostics. • Event logs.	• Remote communication, monitoring & control.	
ENVIRONMENT	Operating Temperature Range (°C)	-20°C to +55°C Humidity (non-condensing): max 95%			
	Solar panels - Max physical load	Wind: 4000 Pa, 408 kg/m² front & back Snow: 6000 Pa, 611 kg/m² front			
	Solar panels - Impact Resistance	25 mm diameter hail at 23 m/s			
MECHANICAL	Static Model Dimensions (mm)	Length – 3200mm Width closed – 2250mm Width open – 5298mm Height – 2518mm			
	Mobile Model Dimensions (mm)	Total Length Inc. Draw Bar & Steps – 5220mm Box Length – 3200mm Width closed – 2250mm Width open – 5298mm Height – 3080mm			
	Static Model Weight (kg)	3800kg	4050kg	4650kg	
	Mobile Model Weight (kg)	3500kg			
	Static Model Lift Points	Forklift pockets / bottom lift + lifting guides			
	Mobile Model Lift Points	OPTIONAL			

Biosmart HVO READY

# After care & Support

▶ YouTube

Videos

We have a range of support videos for end users and engineers. To help keep your Solar Pod running smoothly.

Set up
Servicing
Maintenance & repair
Lifting & Transport

User Manual & Service Guide

A comprehensive owners guide. Every part of the Solar Pod is covered, from End user guides to individual parts servicing, troubleshooting and maintenance.
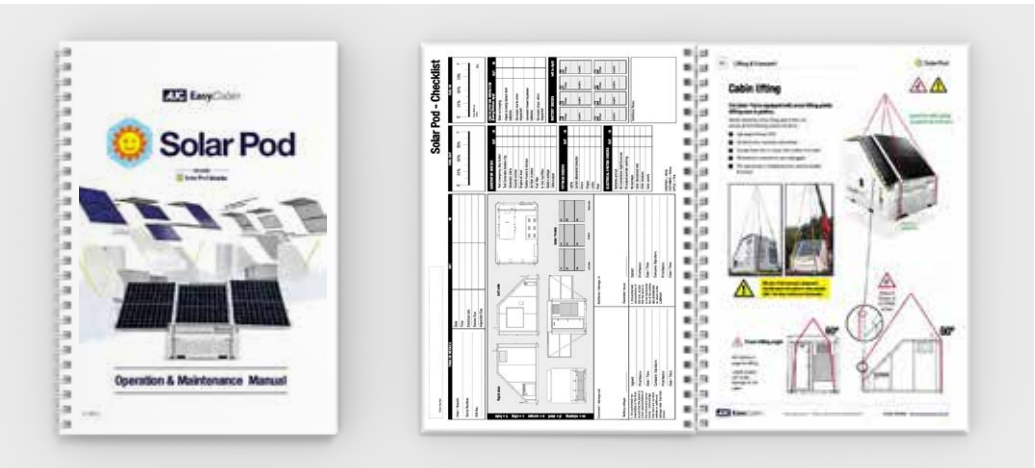
Technical advice & training

We have a dedicated team of engineers UK wide. Ready to respond with remote phone support or at your location.

We offer full training courses in all aspects of Solar Pod maintenance.

Solar Smart [Site]

**Each component is designed to work alone
OR together in ANY combination to save energy.**

ULTIMATE FLEXIBILITY: Save energy in many combinations
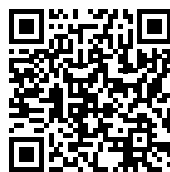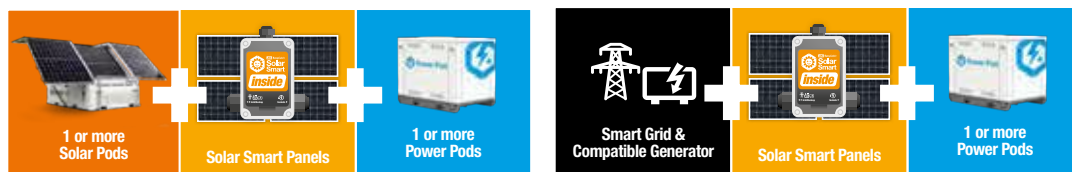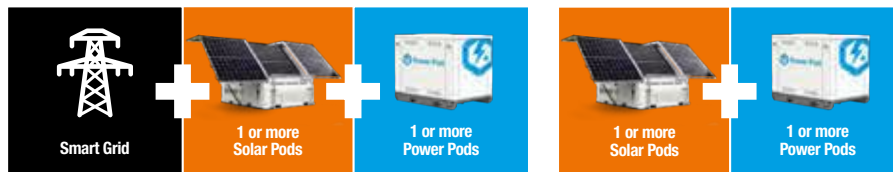
Solar Pod + **Solar Smart** + **Power Pod**
Hybrid solar generator — Plug N play Solar panel kit — High Capacity Battery Bank

Connect Solar Smart Panels with Power Pods
& Solar Pods to save more energy.
Power large and small sites.

Smart Grid + **1 or more Solar Pods** + **1 or more Power Pods**   **1 or more Solar Pods** + **1 or more Power Pods**

Smart Grid + **1 or more Solar Pods** + **Solar Smart Panels** + **1 or more Power Pods**

1 or more Solar Pods + **Solar Smart Panels** + **1 or more Power Pods**   **Smart Grid & Compatible Generator** + **Solar Smart Panels** + **1 or more Power Pods**

Download
Solar Smart Site brochure
https://www.easycabin.co.uk/downloads/solar-smart-site.pdf

Award winning welfare 🇬🇧 **Designed & built in the UK**

CSR 2020/21 Winners
THE INTERNATIONAL CSR EXCELLENCE AWARDS
for companies that have a heart

HaeHa 2020 Hire Industry Product Of The Year.

GREEN APPLE x5   GREEN WORLD AWARDS WINNER x2   GREEN APPLE WINNERS 2021

AJC EasyCabin

VISIT	CALL	EMAIL
easycabin.co.uk	**01582 486663**	**info@easycabin.co.uk**

1 Year Fuel Use Data

Solar Pod
Sustainable Power Supply

About the site

Basildon, Essex. United Kingdom

4x Static Offices

1x Toilet Block

CCTV system running 24/7

2x Water distribution units

Save £15,000 of diesel & 28 Tons of CO_2 per year!

AJC Easy*Cabin*

Diesel Generator

55 kVA

VS

Solar Pod
Sustainable Power Supply

Solar Pod 30 kVA

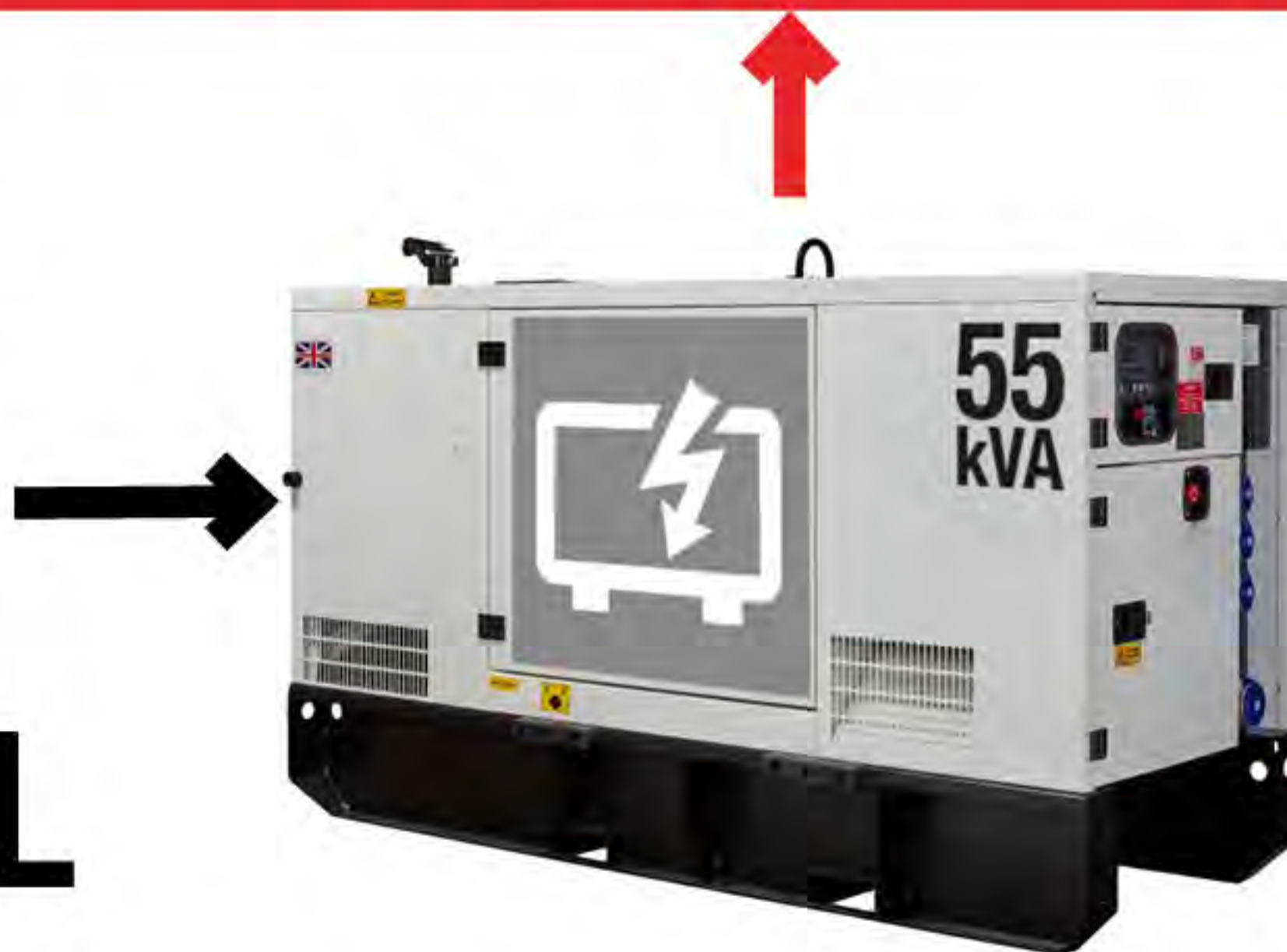## Usage: 12h per day, 7 days a week, 1 year.

Save £15,000 of diesel & 28 Tons of CO_2 per year!

Site power consumption = **9,128 kWH**

Diesel **3,725 L**

4,590 kWh

1,701 kWh

Solar Pod 30 kVA

Generator Runtime
18%
1,202 Hours

Solar Pod
Sustainable Power Supply

Solar Power Input

1,701 kWh

Silent Running

3,677 Hours

Diesel Saved

@ £1.53 per litre

£15,470

CO^2 Saved

28 Tons

Same as 1,394 trees planted

Run your site on sustainable power.

Office

Office

Solar Light

Solar Light

Canteen

Solar Light

Solar Light

Drying / Changing

Toilet block

Solar Light

Solar Pod
Sustainable Power Supply

Solar Pod

Easily add a sustainable power supply to remote site locations.

Site welfare doesn't cost the earth when you're...

Ecosmart®

CSR 2020 / 2021 Winners
THE INTERNATIONAL CSR EXCELLENCE AWARDS
for companies that have a heart

Hae eHa
Hire Awards of Excellence
2020 Hire Industry Product Of The Year.

GREEN APPLE ENVIRONMENT AWARDS **x5**

GREEN WORLD AWARDS WINNERS **x2**

GREEN APPLE ENVIRONMENT AWARDS **WINNERS 2021**

Award winning site welfare units & power solutions

AJC EasyCabin