

Your Solar Proposal

Thanks for choosing Net-Eco to provide a design for a solar PV system at Green lane, Sherston,. We're delighted to supply the attached proposal for a 12.285 kW solar array.

We expect your system to generate 10,392 kWh of clean electricity every year, and save 2,152 kg CO₂ of carbon.

There are full details on the following pages. We hope you enjoy the read!

Kind regards,

Ryan Jefferies

Net-Eco

Contents

Overview	2
Performance	4
Battery Storage	5
Consumption	6
Financial	7
Environment	8
Quote	9

This proposal is for:

Sherston Scout Hub

Green lane
Sherston

SN16 0hp

Prepared

4 December 2025

Valid for

30 days



12.285 kW PV System



[Redacted text]



10,392 kWh/yr: Annual CO₂ savings of 2,152 kg



11.5 kWh battery storage

System Overview

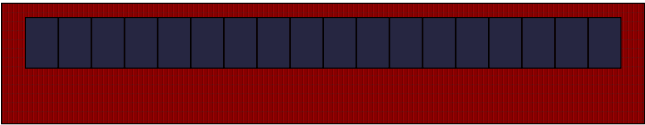
Your system comprises **27 Jinko Tiger Neo 455W Dual Glass All Black N-Type Mono** solar panels to collect sunlight and turn it into DC electricity.

The panels will be connected to **1 Fox ESS KH 9kW 1ph Hybrid inverter**, which converts the DC electricity into mains (AC) electricity.

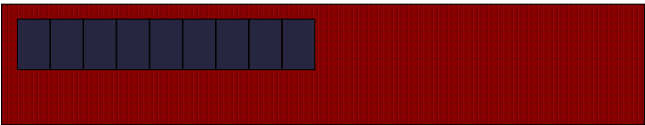
A **Fox ESS 11.5kWh battery storage system** will allow you to store excess energy from sunny days, so that you can use your generated electricity at night too.

We include all the isolators, wiring and meters needed to connect the system safely to your electrical system. Your system will be installed and certified by our trained installation team.

Front roof



Back roof



Solar Panels: Jinko Tiger Neo 455W Dual Glass All Black N-Type Mono × 27

Jinko's latest N-Type modules are loaded with features and technologies that deliver a high power performance and guarantee reliability and safety over...

Model	Tiger Neo
Power	455 watts
Dimensions	1134 × 1762mm



Inverter: Fox ESS KH 9kW 1ph Hybrid

Flexible configuration, plug and play set-up. Expand your system easily by simply adding additional batteries.

AC Power	9000 watts
Trackers	4

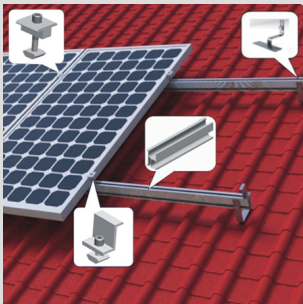
System Components



Battery: Fox ESS EP12 Plus 11.52kWh Li-ion Battery w/ heating function

Fox ESS EP12 Battery with smart battery warming.

Capacity	11.520 kWh
Quantity	1



Mounting: Fastensol pitched roof mounting system

Fastensol are an excellent value choice for pitched roof mounting systems, suitable for the majority of roof types.

Designed for	Concrete Tile roofs
Colour	Not specified

System Performance

We have made an estimate of the annual energy generation of your system. This takes into account the following factors that affect the output of a solar array.

The location of the system

Sunlight is weaker near the poles than near the equator. We use data from a meteorological model of the intensity of sunlight over the course of the year in different locations all over the world.

The orientation of the system

Solar panels that face south receive a little more sunlight than panels that face east or west. However, in diffuse light the orientation of the panels makes little difference, so the effect is less marked than many people imagine.

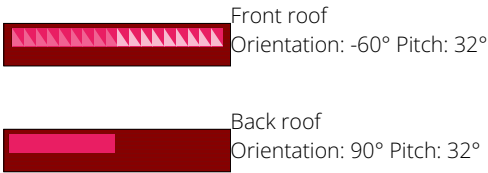
The degree of shading

If you have trees, neighbouring buildings or nearby high ground that will shade your PV array, the output of the system will be reduced. We have used a 'sunpath diagram' that estimates how often sunlight will be blocked from reaching the panels.

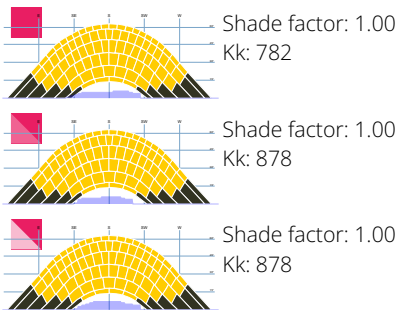
We expect your system to generate
10,392 kWh per year

Installation data		
Installation capacity of PV system – kWp (stc)		12.3 kWp
Orientation of the PV system – degrees from South	See roof diagrams	
Inclination of system (pitch) – degrees from horizontal	See roof diagrams	
Postcode region	Zone SE	
Performance Calculations		
kWh/kWp (Kk)	See sunpath diagrams	
Shade Factor (SF)	See sunpath diagrams	
Estimated output (kWp x Kk x SF)		10392 kWh

Roof diagrams



Sunpath diagrams



Important note: The performance of solar PV systems is impossible to predict with certainty due to the variability in the amount of sunlight from location to location and from year to year. This estimate is based upon a model that takes account of meteorological data at your location and makes an allowance for losses due to shading of the panels. This is a complex calculation however, and no model can be 100% accurate. It should not be considered a guarantee of performance.

If shading is present on your system that will reduce its output to the factor stated. This factor was calculated using industry standard shading methodology and we believe that this will yield results within 10% of the actual energy estimate stated for most systems.

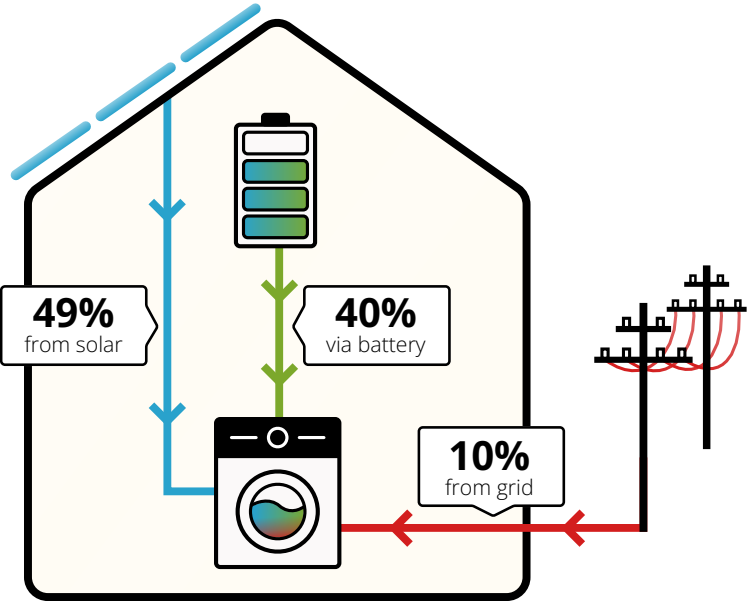
Battery Storage

We have included 11.5 kWh of battery storage in this proposal. On sunny days, when your PV array is producing more electricity than you are using in the property, you will be able to store the spare energy and use it at night.

Battery storage systems increase the proportion of electricity generated by a solar PV array that is consumed in the property rather than exported to the grid. Excess solar energy that is not needed during the day can be stored and subsequently used overnight

This leads to financial savings, as you replace expensive imported electricity with electricity generated by your solar panels.

Where will your power come from?



Annual Power Requirement: 4000 kWh

How battery storage reduces your grid dependence

Including battery storage will reduce your grid dependence by an extra 40% compared with a PV-only system. You should only need to buy around 10% of your power from the grid.

 **90%**
total reduction of grid dependence with battery

Estimated PV self-consumption – PV only	
Assumed occupancy archetype	Sports and Leisure
Assumed annual domestic electricity consumption	4000 kWh
Expected solar PV self-consumption (PV Only)	1975 kWh
Grid electricity independence / Self-sufficiency (PV Only)	49%
Estimated PV self-consumption – with EESS	
Assumed usable capacity of electrical energy storage device, which is used for self-consumption	10.37 kWh
Expected solar PV self-consumption (with EESS)	3594 kWh
Grid electricity independence / Self-sufficiency (with EESS)	90%

Important note: We have used a model of your system running at high resolution over the course of a year to determine the likely self-consumption of your property and performance of the battery system. The energy performance and benefits of battery systems are impossible to predict with certainty due to the numerous functions battery systems can be programmed to perform. This estimate is given as guidance only. It should not be considered as a guarantee of performance.

Your Energy Explained

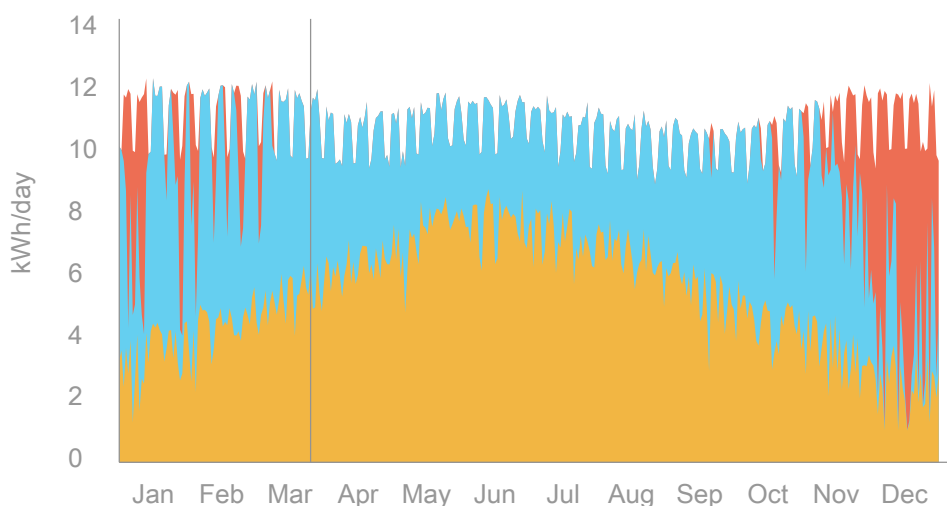
In addition to the MCS calculation of system output we have run a detailed model of your system to estimate how much of the electricity generated by the system you are likely to use yourself and how much will go to the grid.

Our model simulates how your system behaves minute-by-minute over the course of an entire year, allowing us to predict how the solar array and battery will meet your electricity consumption at different times. For example we can look at a sunny day in summer where your generation may considerably exceed what you use in the house, or a dull day in winter where you may still need to import significant amounts of electricity from the grid. We can also predict the state of charge of the battery at any point in the year, and we can calculate financial benefits by applying electricity tariffs, including variable ones that change by the time of day. This allows us to more accurately predict likely savings from the system.

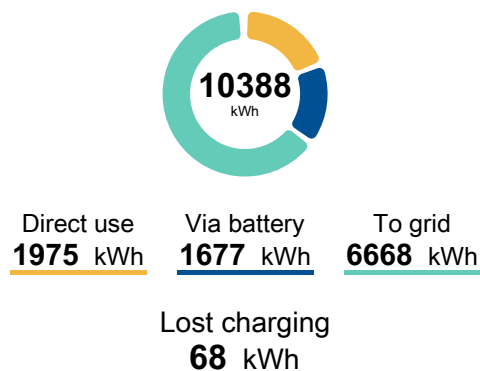
Accredited systems installed in the UK are eligible for export payments for each unit of electricity exported through the Smart Export Guarantee (SEG). You can get details from your electricity supplier or from Ofgem (ofgem.gov.uk).

Where your electricity comes from in a typical year

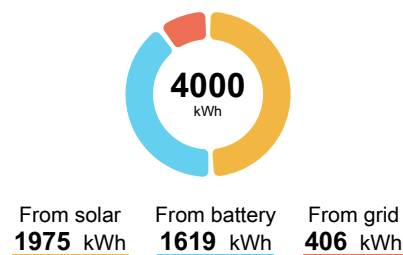
Based on an electricity usage of 4000 kWh per year, the graph below shows how much electricity used in the property is expected to come directly from the solar panels, how much is expected to come via battery storage, and how much is expected to come directly from the grid.



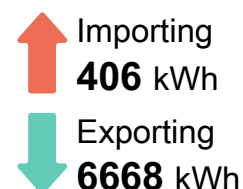
Annual Generation



Annual Consumption

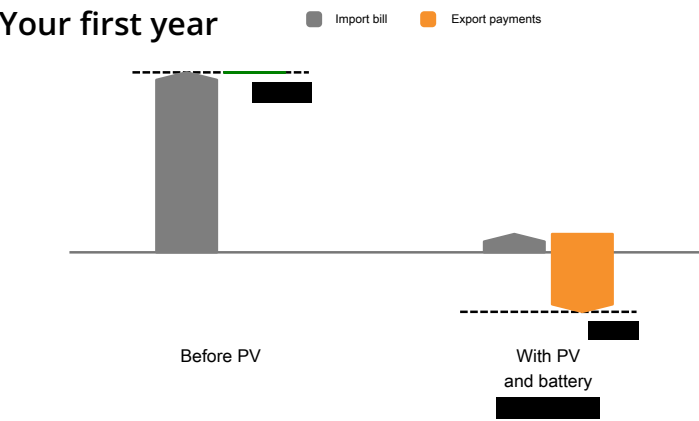


Annual Import/Export



Financial Benefits

We have run a detailed model to estimate financial returns from your solar installation over a 25 year period.



Your PV system will generate electricity that you would otherwise need to buy from the grid. In the first year of operation, assuming you are on a flat tariff of 27.00 p/kWh, we expect your electricity bill to fall from [redacted] to [redacted].

You will also export excess electricity to the grid. With a flat export tariff paying 7.00 p/kWh, we expect you to earn [redacted] from exported electricity in the first year, giving you a profit of [redacted] in the first year.

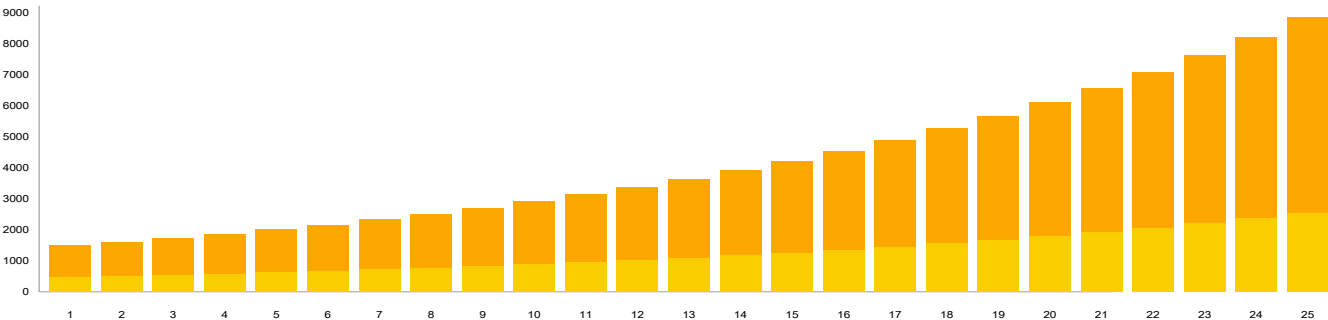
These 'first year' figures have been calculated without allowing for inflation or gradual solar panel degradation. When these are taken into account we can run a full lifetime simulation of benefits, shown in the graph below.

How we calculate your system's financial projections

On the following page we show tables for cumulative income and expenditure over the full lifetime of your system. In these tables we have applied a discount rate of 4%. A discount rate is a means of comparing costs and benefits over time by lowering the value of a future sum of money to show what it is worth today.

Assumptions

Projection length	25 years
Degradation Rate	0.5% per year
Inflation rate	8%
Discount Rate	4%
Future import tariff:	Import 27.00 p/kWh increasing with inflation
Existing export tariff:	7p 7.00 p/kWh increasing with inflation



Environmental Benefits

Your new PV system will supply your property with clean, green electricity - and in sunny periods some will also be exported back to the grid.

Overall you'll be making a big contribution to reducing CO₂ not just by lowering the carbon intensity of your own electricity, but by putting low-carbon electricity back in the grid for others to use too.

Your current electricity supply produces

828 kg CO₂
each year

90% will be supplied by solar, saving

744 kg CO₂
each year

6,668 kWh will be exported, saving

1,381 kg CO₂
each year

Total savings

2,125 kg CO₂
each year

Your yearly CO₂
reduction of 2,125 kg
is equal to...



a car ride of 7,588
miles



CO₂ absorbed by 97
trees

Disclaimer: We calculate and compare the likely annual CO₂ emissions for your home based on your generation and usage with the solar PV system detailed in this document versus estimates for a property like yours using energy from the grid. Your actual CO₂ emissions will depend on lots of factors, like how much energy your solar panels generate, how much of this energy you use directly and how much energy you continue to use from the grid. To calculate what these savings equate to in miles driven, we base this on the CO₂ emissions of an average sized diesel car as outlined in the UK government's 'Greenhouse gas reporting: conversion factors 2024' (<https://www.gov.uk/government/publications/greenhouse-gas-reporting-conversion-factors-2024>). To calculate what these savings equate to as the average amount of CO₂ absorbed by trees, we base this on a rate of 22kg per tree per year. Trees absorb anywhere between 10 and 40kg of CO₂ per year on average, depending on a whole host of factors including the species, location, planting density, and age.

Quote



Sherston Scout Hub
Green lane
Sherston

Quote reference: 1399813
Quote date: 04/12/2025
Quote by: Ryan Jefferies
Quote validity: 30 days

SN16 0HP

Description of goods and services	Price
Goods	
27 x Jinko 455W solar panels	
Fastensol pitched roof mounting system	
Fox ESS KH 9kW 1ph Hybrid inverter	
Fox ESS EP12 Plus 11.52kWh Li-ion Battery w/ heating function	
Electrical and ancillary items	
Services	
Labour	
Scaffolding	