

YOUR SOLAR QUOTE

Hi John.

Thanks for choosing Resistance electrical to provide a design for a solar PV system at 44a Northbrook road, BN148PW.

We're delighted to supply the attached proposal for a 2.325 kW solar array.

We expect your system to generate 1,874 kWh of clean electricity every year, and save 388 kg CO₂ of carbon.

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

Kind regards,

Tom Stephens

Resistance electrical



2.33 kW PV System

2 × 465W & 3 × 465W
panels,
1 × Fox ESS S Series (G2)
2.5kW 1ph 1MPPT String
Inverter



£5,994 inc VAT

Expected payback 14
years. Estimated first
year savings £155



1,874 kWh/yr

Annual CO₂ savings
of 388 kg

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This proposal is for:

John Stammers



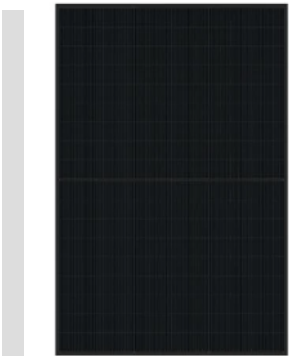
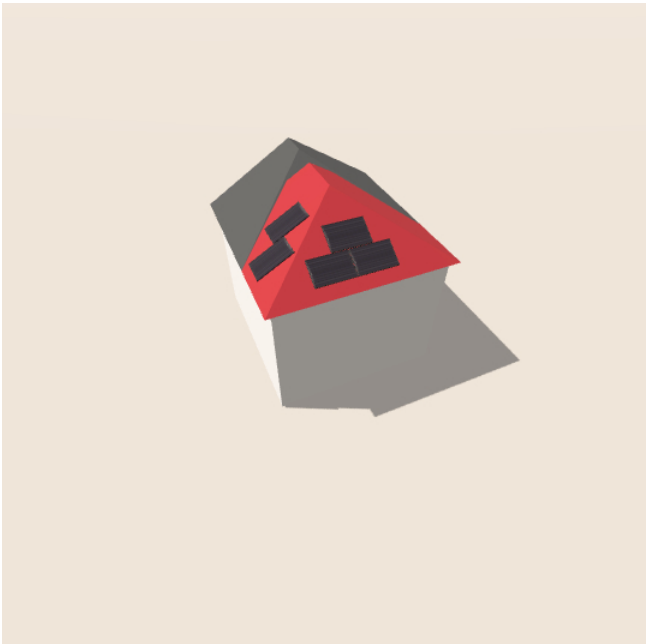
Prepared	18 September 2026
Valid for	30 days

System Overview

Your system comprises 5 DMEGC DM465G12RT-G48HBB 465W ALL BLACK solar panels to collect sunlight and turn it into DC electricity.

The panels will be connected to 1 Fox ESS S Series (G2) 2.5kW 1ph 1MPPT String Inverter inverter, which converts the DC electricity into mains (AC) electricity.

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.



Solar Panels: DMEGC DM465G12RT-G48HBB 465W ALL BLACK × 5

n-type Mono all black 465w panel

Model	DM465G12RT-G48HBB 465W
Power	465 watts
Dimensions	1134 × 1762mm

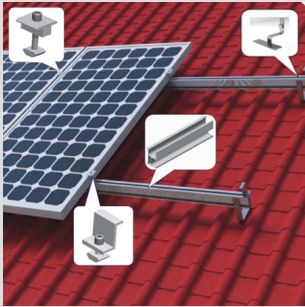


Inverter: Fox ESS S Series (G2) 2.5kW 1ph 1MPPT String Inverter

Fox ESS offers a range of single MPPT single-phase inverters offering unparalleled efficiency and performance, including the S2500-G2. Small and compa...

AC Power	2500 watts
Trackers	1

System Components



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	Plain Tile roofs
Colour	Black

System Performance

We have made an estimate of the annual energy generation of your system using the procedure recommended by the UK's Microgeneration Certification Scheme (MCS). This takes into account the following factors that affect the output of a solar array.

The location of the system

Sunlight is weaker in the north of the UK than in the south, so the tables we use divide the country into a number of zones based on your postcode.

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
1,874 kWh per year

Installation data

Installation capacity of PV system – kWp (stc)	2.33 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 2

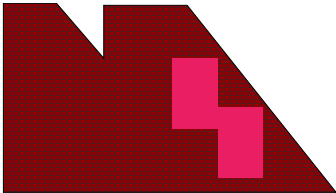
Performance Calculations

kWh/kWp (Kk)	See sunpath diagrams
Shade Factor (SF)	See sunpath diagrams
Estimated output (kWp × Kk × SF)	1874 kWh

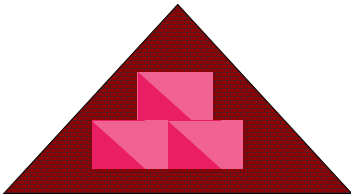
Estimated PV self-consumption - PV only

Assumed occupancy archetype	in half the day
Assumed annual electricity consumption	3000kWh
Expected solar PV self-consumption (PV only)	618kWh
Grid electricity independence / self-sufficiency (PV only)	21%

Roof diagrams

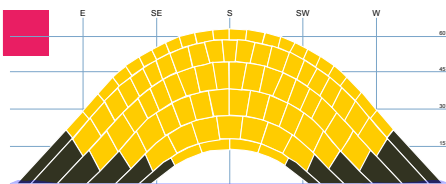


Roof South East Orientation: -56° Pitch: 30°

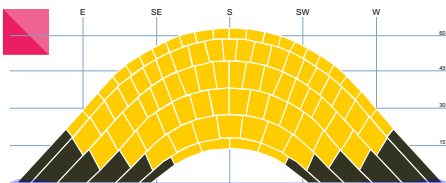


Roof North East Orientation: -146° Pitch: 32°

Sunpath diagrams



Shade factor: 1.00 Kk: 1028



Shade factor: 1.00 Kk: 658

Important note: The performance of solar PV systems is impossible to predict with certainty due to the variability in the amount of solar radiation (sunlight) from location to location and from year to year. This estimate is based upon the standard MCS procedure and is given as guidance only for the first year of generation. 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 the MCS shading methodology and we believe that this will yield results within 10% of the actual energy estimate stated for most systems.

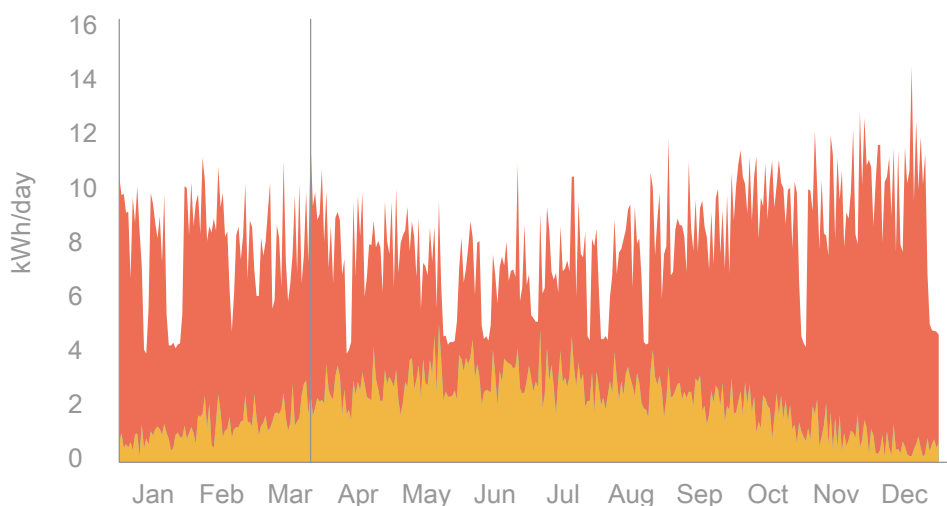
Your Energy Explained

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.

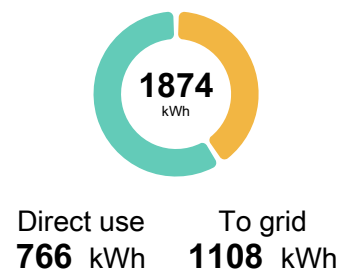
Our model simulates how your system behaves minute-by-minute over the course of an entire year, allowing us to predict how the solar array will meet your electricity consumption at different times. For example we can look at a sunny day in summer where your generation may considerably exceed what you use in the house, or a dull day in winter where you may still need to import significant amounts of electricity from the grid. 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

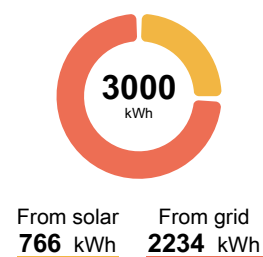
Based on an electricity usage of 3000 kWh per year, the graph below shows how much electricity used in the property is expected to come directly from the solar panels and how much is expected to come directly from the grid.



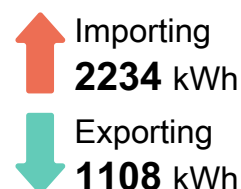
Annual Generation



Annual Consumption



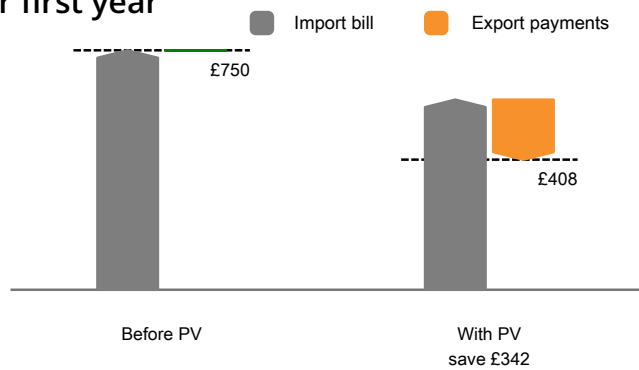
Annual Import/Export



Financial Benefits

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

Your first year



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 25.00 p/kWh, we expect your electricity bill to fall from £750 to £596 - a saving of £155.

You will also export excess electricity to the grid. With a flat export tariff paying 15.00 p/kWh, we expect you to earn £188 from exported electricity in the first year, making the effective cost of electricity for your property £408 in the first year.

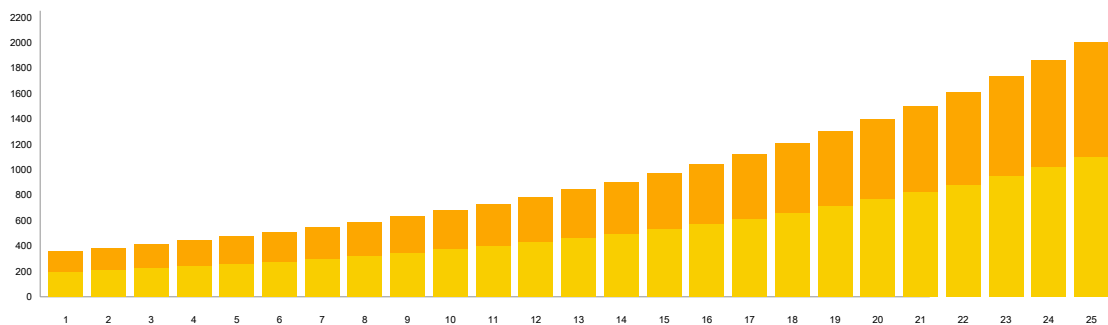
These 'first year' figures have been calculated without allowing for inflation or gradual solar panel degradation. When these are taken into account we can run a full lifetime simulation of benefits, shown in the graph below.

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	2%
Discount Rate	4%
Future import tariff:	octopus import 25.00 p/kWh increasing at 6% above inflation
Future export tariff:	octopus 15.00 p/kWh increasing at 6% above 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

621 kg CO₂
each year

21% will be supplied by solar, saving

128 kg CO₂
each year

1,256 kWh will be exported, saving

260 kg CO₂
each year

Total savings

388 kg CO₂
each year

Your yearly CO₂
reduction of 388 kg
is equal to...



a car ride of 1,386
miles



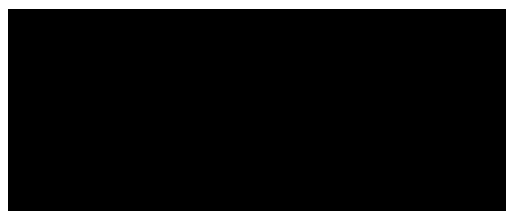
CO₂ absorbed by 18
trees

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



John Stammers



Description of goods and services

Price

Goods

5 × DMEGC DM465G12RT-G48HBB 465W ALL BLACK solar panel
20 × Fastensol end clamp (30mm black)
20 × Fastensol black end cap
8 × Fastensol portrait flat tile roof hook
20 × Hookstop protector
2 × Fastensol Bird Protection Mesh (30m)
5 × Fastensol black rail 3550mm
12 × Fastensol landscape flat tile roof hook
5 × Fastensol rail bolt
Fox ESS S Series (G2) 2.5kW 1ph 1MPPT String Inverter inverter
2 × AC isolator - IMO - 20A 4-pole
IMO 25A DC Isolator 4-pole 2-string
5 × Tigo TS4-A-O
2 × MC4 6mm Connector Pair
100m reel of 6mm² solar cable
Emlite ECA2 1ph Meter (Standard Cover)
Label sheet
Additional electrical components, fixings, breakers ac cable ect

Goods total

£2,207.69

Services

Installation
6 year insurance backed workmanship warranty
MCS registration
Scaffolding
Dno G98
All required certification

Services total

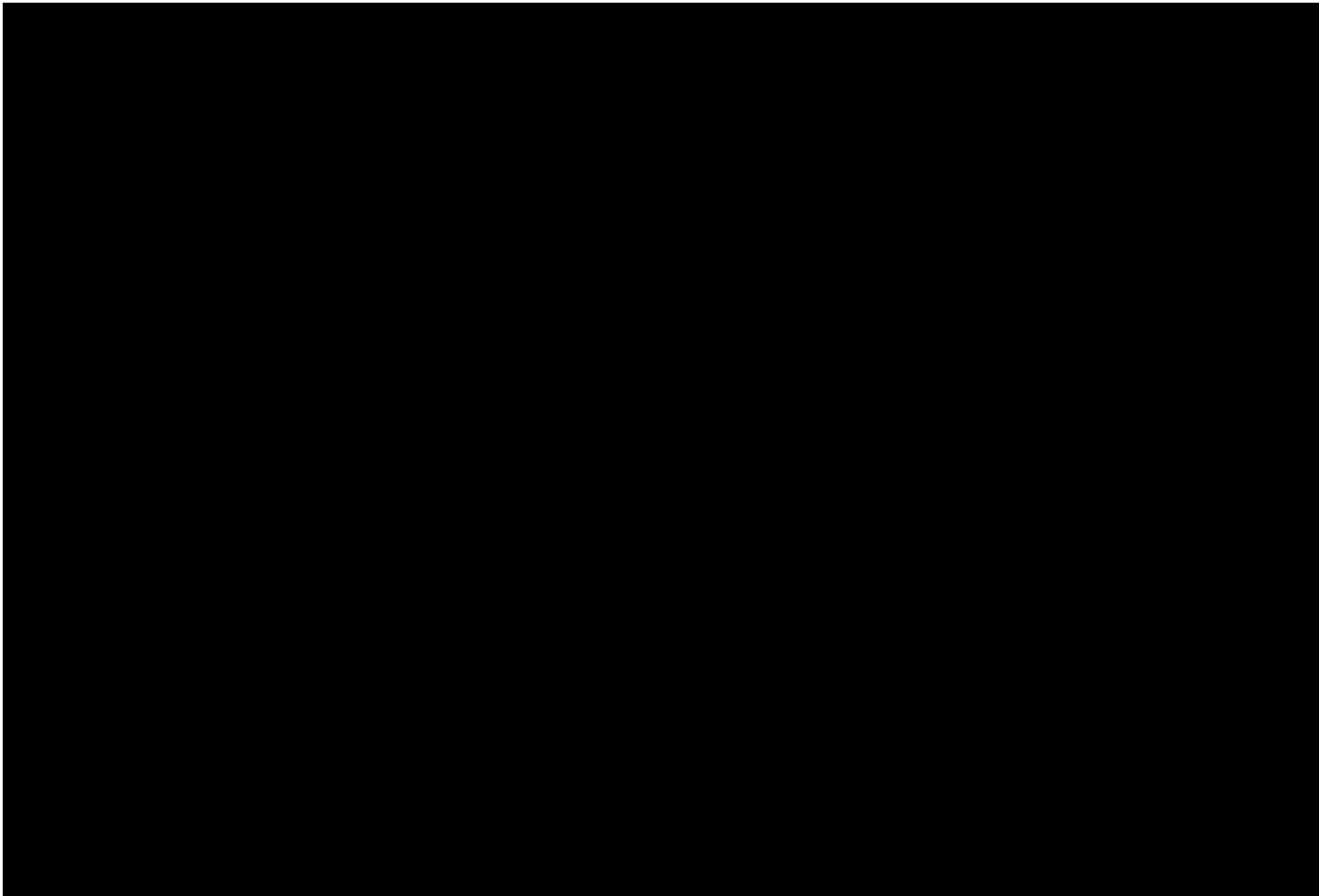
£3,786.75

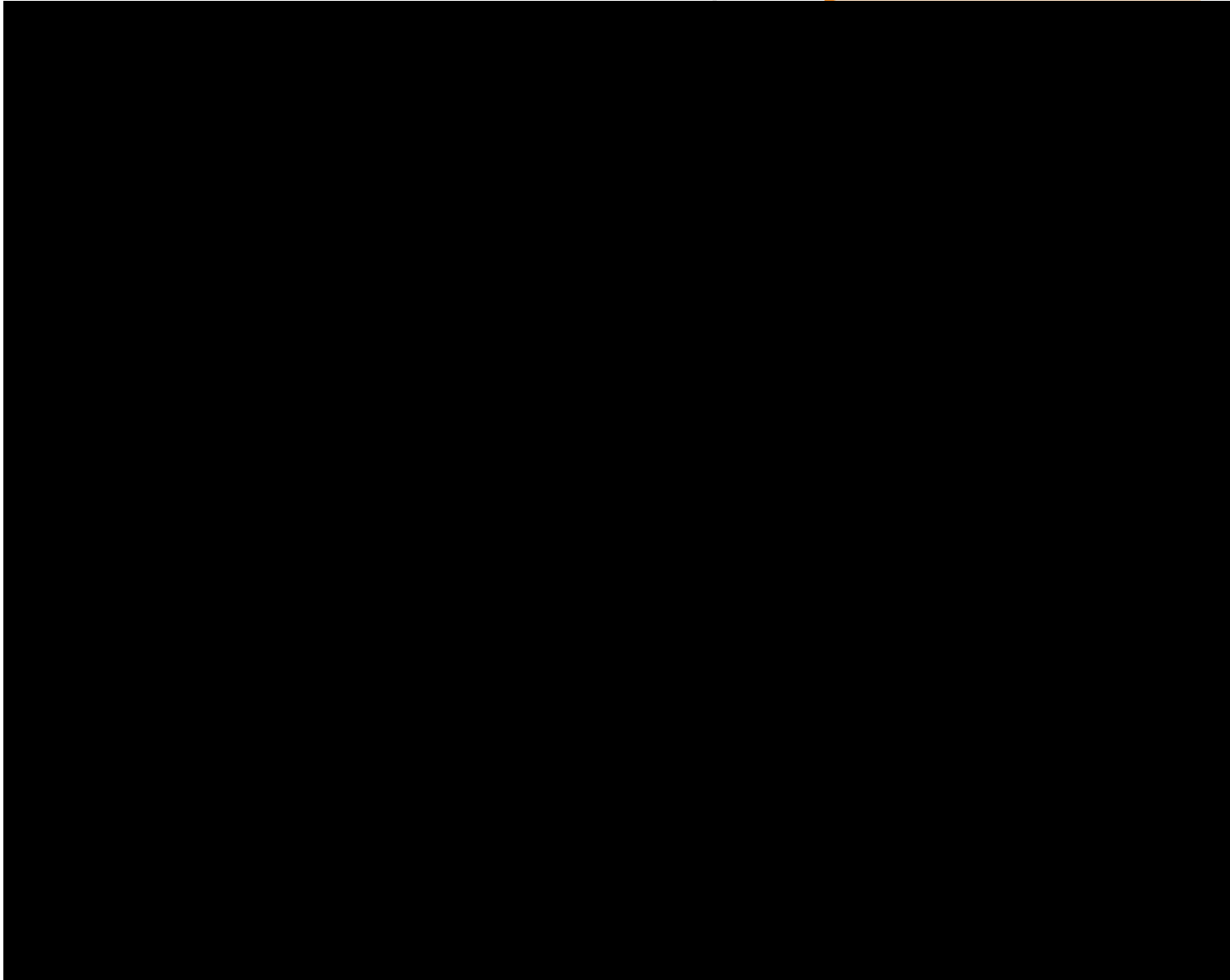
System cost £5,994.44

Total before VAT £5,994.44

VAT at 0% £0.00

Total including VAT £5,994.44





Disclaimer

Currency amounts are rounded to the nearest whole unit. We estimate the system's costs and benefits over the lifetime of the system using the assumptions shown on the Financial Benefits page. Please review these carefully to ensure they reflect your circumstances. Actual returns may vary and depend on variables that cannot be predicted.