




Reimagining Energy In Communities

Domestic and Commercial Energy Solutions

ebisgb.com

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**SOLAR IS
THE FASTEST
GROWING
GREEN ENERGY
SOLUTION**

About Us

EBIS is a Renewable Energy company that combines industry expertise with the very latest green technologies.

Specialising in the production, storage, and utilisation of Green Energy, **EBIS** provides expert advice and bespoke solutions to deliver the high-quality and cost-effective outcomes our clients need in a volatile energy environment.

EBIS possesses decades of experience in securing successful results in every corner of the world. Across multiple energy generation sectors and markets, **EBIS** knows the importance of clear information, actionable insight, and results-focused strategies in electrical operation consumption.

EBIS helps clients action their Environmental and Social Governance (ESG) targets, stimulating commercial energy saving, to improve the balance sheet and achieve Net Zero 2030 legal requirements.

To reduce clients' costs, **EBIS** alleviates financial uncertainty through innovative finance solutions, helping to reduce or eliminate any capital expenditure. With our two-way grid connectivity, we make our clients energy work harder for them, so they can sell a percentage of their excess energy to the grid.

Working around the world on projects from social housing to large scale solar farms, **EBIS** partners with Local Authorities, business owners, landowners, and Housing Associations.

EBIS operates with a team of international, multi-lingual staff, utilising the latest cutting-edge technology. We offer a proven methodology for problem-solving and integrated Hybrid Energy Management Technologies.

28,000
The number of homes that can be powered by a 1km² 50 megawatt solar farm.

Ebis Is The Best Choice To Reduce Your Energy Bills

Renewable energy produced at source

Help to meet Net Zero 2030 targets and improve EPC

Reduced dependency on the grid

Technological innovation pioneering new solutions

“Built Around You” bespoke commercial solutions

Bespoke Asset Finance solutions

Partnerships with both with tier 1 and tier 2 companies

Audited supply chains

Insurance guarantees

In-house training and development schools

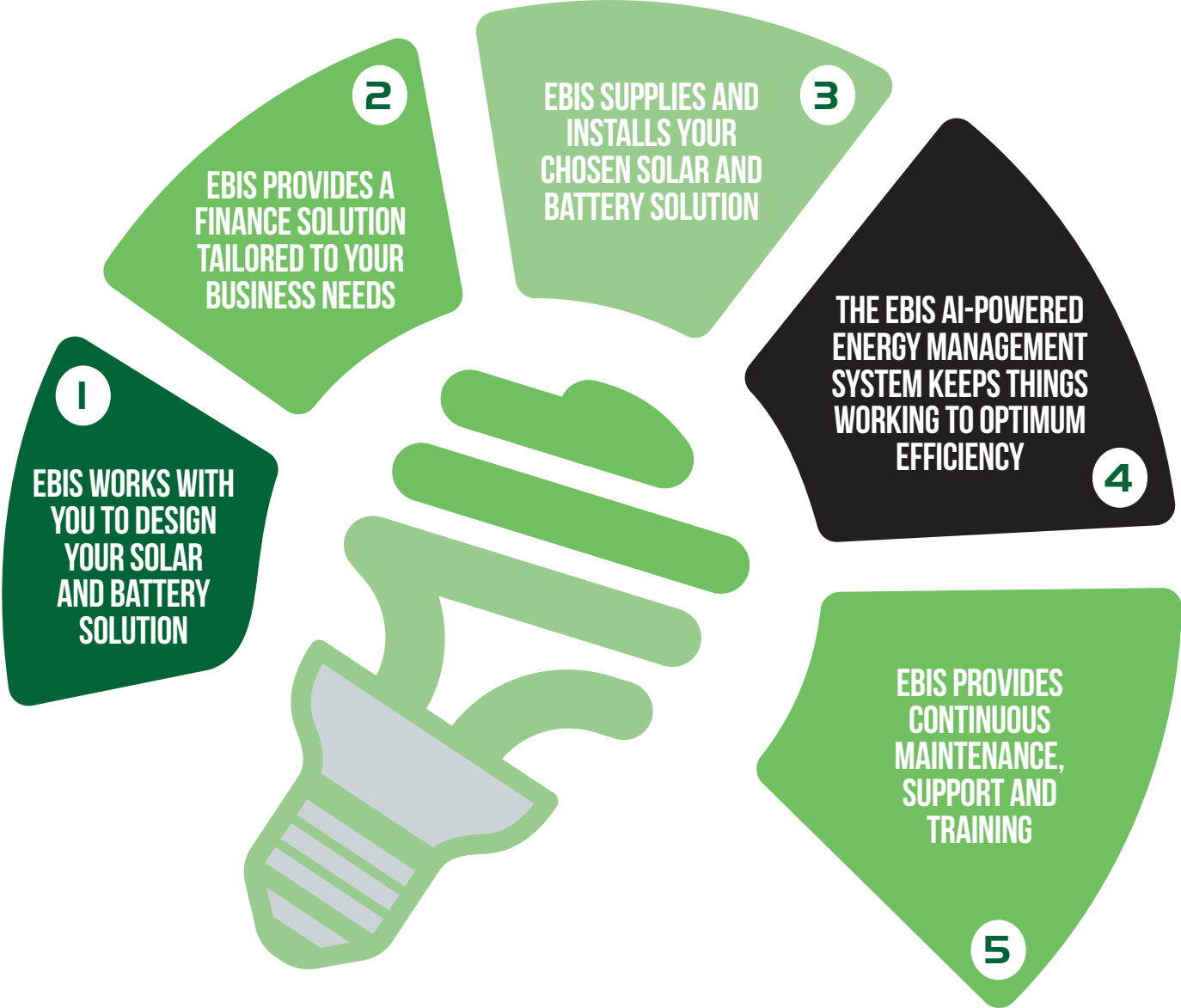
Certified MCS installers and kit

Continuous monitoring and maintenance



5 Steps To Cut Your Bills

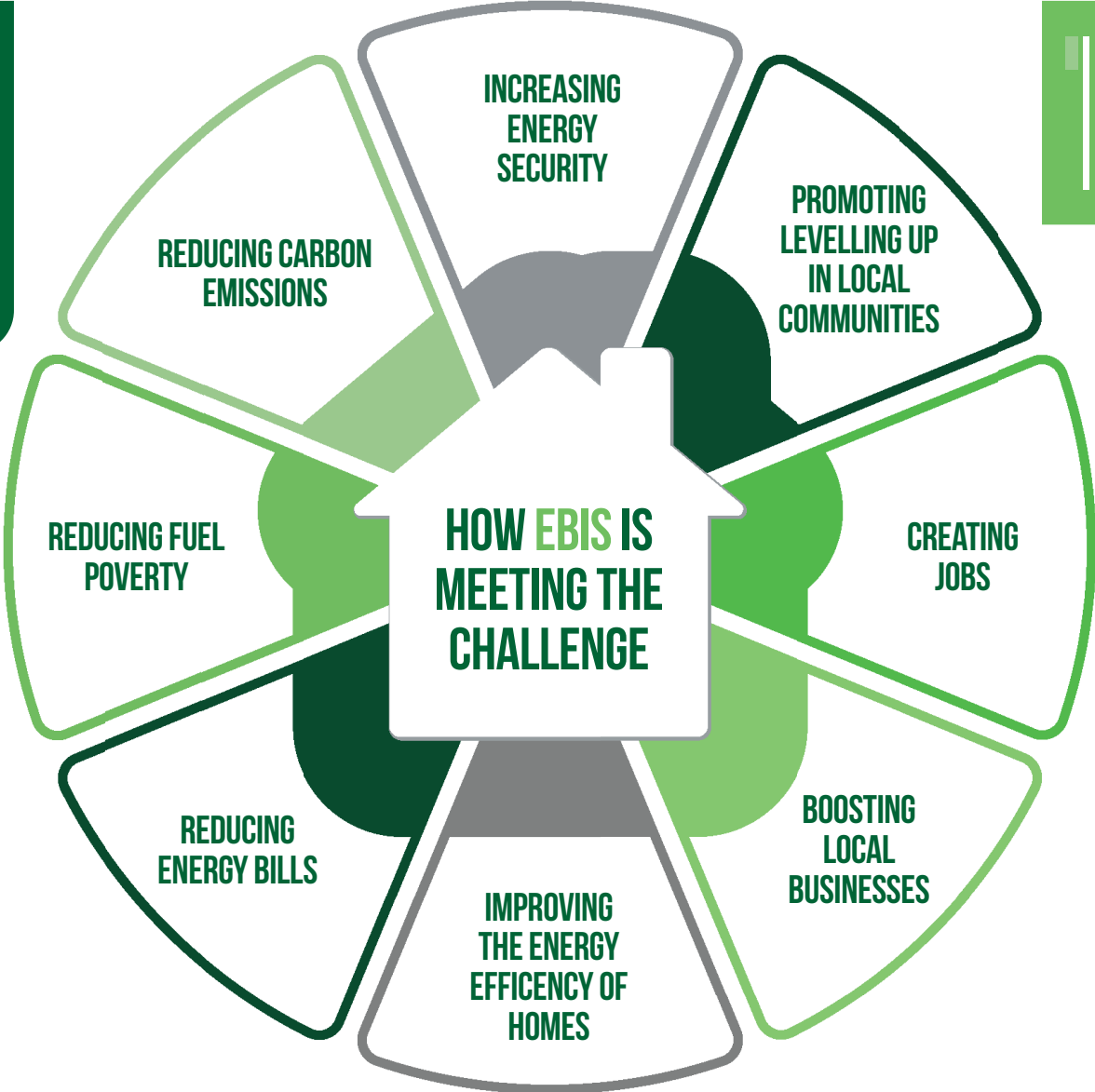
The **EBIS Ethos** is to follow these five guiding steps to decarbonise the domestic, commercial, and industrial sectors. Helping to achieve UK wide Net Zero by 2030.



How We Are Tackling the UK Energy Crisis

The UK is currently in the middle of an energy crisis, which is the key driver of the cost-of-living crisis now hitting households and businesses.

EBIS is dedicated to tackling the challenges facing the UK energy crisis today.



Who We Can Help

Sectors

- Culture, Hospitality and Sports ✓
- Commercial ✓
- Education and Learning ✓
- Housing and Regeneration ✓
- Healthcare ✓
- Agricultural, Industrial and Manufacturing ✓
- Local and Central Government ✓
- Retail ✓
- Technology and Data Centres ✓
- Transport ✓



Sites

- Business parks ✓
- Industrial parks ✓
- Leisure centres ✓
- Motorway services ✓
- New/existing housing ✓
- NHS Trust Estates ✓
- Railway stations ✓
- Retail parks ✓
- Schools ✓
- Stadiums ✓
- Supermarkets ✓
- Warehouses/sheds ✓

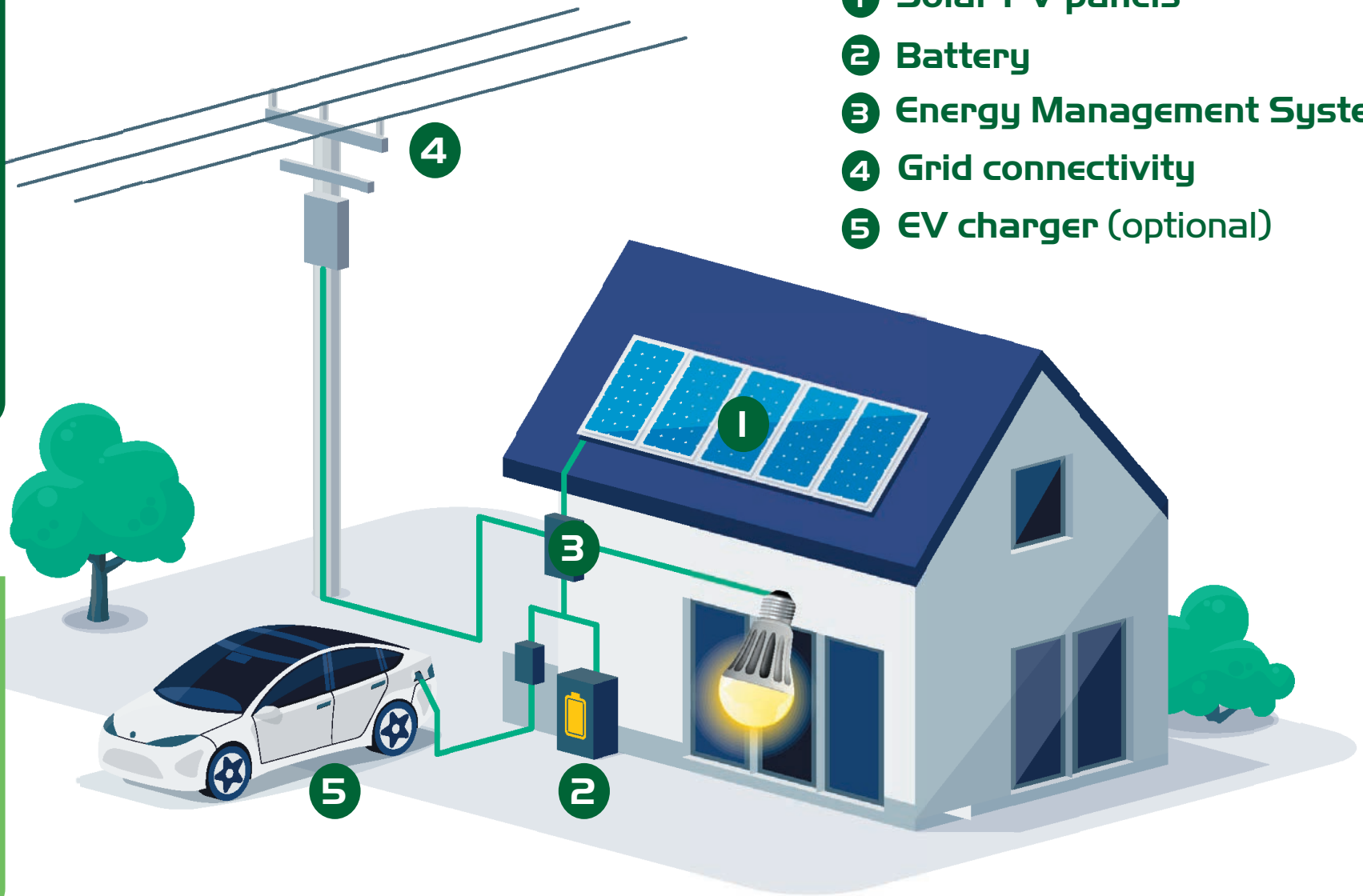
Community Hub Energy Solutions



Community Hub Energy Solutions

EBIS combines environmental responsibility with innovations in engineering and technology to maximise energy efficiency and cost savings.

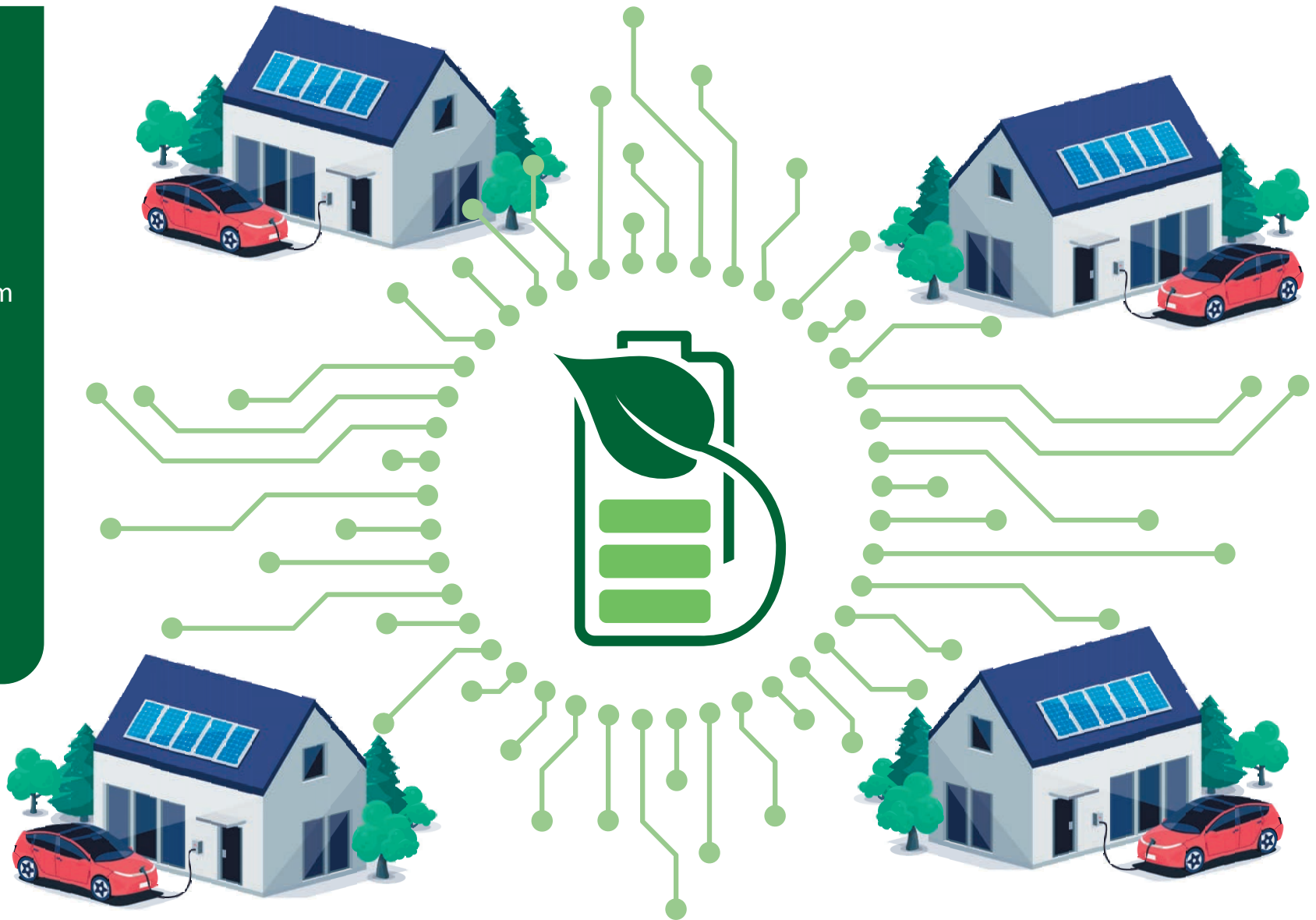
In housing clusters of '000+ homes EBIS can add an in a additional storage battery for further flexibility.



- 1 Solar PV panels
- 2 Battery
- 3 Energy Management System
- 4 Grid connectivity
- 5 EV charger (optional)

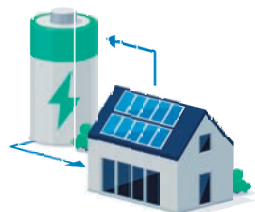
Community Hub Energy Solutions

EBIS's Community Hub Energy Solution connects a **large central battery** at the centre of the community. Excess energy from individual homes is transitioned to the large storage battery. This allows a **local contingency** to provide local, non-grid sourced energy at the **lower EBIS rate**.



Community Hub Energy Solutions

Solar and battery



EBIS install a solar solution together with a battery that will store unused power that can be drawn upon when required.

Solutions are bespoke for each client, depending on factors including:

- Number of suitable locations for Solar PV panels and client energy usage
- Additional energy requirements such as Electric Vehicle Chargers and heat pumps

Battery solution sizes also vary:

- Small battery solutions (around the size of a domestic boiler) can hold 3-8kWh for a single homes.
- Larger battery solutions can hold as much as needed and are usually externally housed in a specialist container or separate building.

If a client has a “time of use” tariff, whereby electric is more expensive at different times of the day, a battery can shift the use of solar generated or grid purchased energy to a time when they would otherwise be buying electric at a high grid rate. A battery can also be used, especially in winter, to store electric at cheap night rate for use later in the day.

Energy Management System

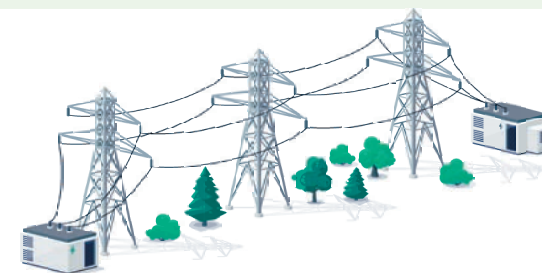


An EBIS Energy Management System (EMS) acts as a mediator that communicates between the user and all the other systems involved.

The EMS uses Artificial Intelligence to learn the users’ habits and requirements to establish the best use of their energy system for their home or business.

For instance, if members of a household work away from home between 9am and 5pm and not using the battery, the EMS will store the power in the battery for use when they get home, turning on multiple electric devices charging their car. The EMS also allows us to identify faults, prevent bottlenecks (areas that are wasting or restricting energy usage/supply) and schedule upcoming maintenance.

Grid Connectivity



An EBIS system will offload and sell any unused power that is not being stored in the battery to the Grid.

In addition, if solar development is not producing the required amount of energy at any time, power can be purchased back from the grid and stored in the battery at night to benefit from lower rates.

Commercial Energy Solutions



Commercial Energy Solutions

Businesses in the UK need to meet **challenging carbon reduction targets** and **switch from fossil fuel-based energy supply** to electric.

- **Commercial energy**, termed “**non-domestic**” by the regulator (Ofgem), **works differently to domestic energy**.
- **Most customers enter 1-to-3-year fixed term contracts** for both **electric and gas**, and use brokers to gather quotes from energy suppliers.
- **Every customer has different grid contractual terms and tariffs** and must be **assessed individually**.
- The **type of business significantly changes both the volume and profile of usage**.
- Commercial energy contracts often have a **minimum KWH usage** with different pricing applied if the level of usage is lower than expected.
- For **large businesses**, ‘**time of use rates**’ (transition from Amber to Red rates) apply, which means the **usage costs during set hours are significantly higher**.
- **Electric prices are now in the 50p to 80p per kWh range**, compared to 12p to 20p per kWh. **Gas prices are in the 19p per kWh range**, compared with 2p to 4p per kWh previously.
- These **increases of 400%-500%** are likely to remain for **several years** and even when they are reduced, they will likely remain at **100%-200%**.

Against this challenging background, **EBIS** combines environmental responsibility with innovations in engineering and technology to **maximise energy efficiency and cost savings for businesses in the UK**.

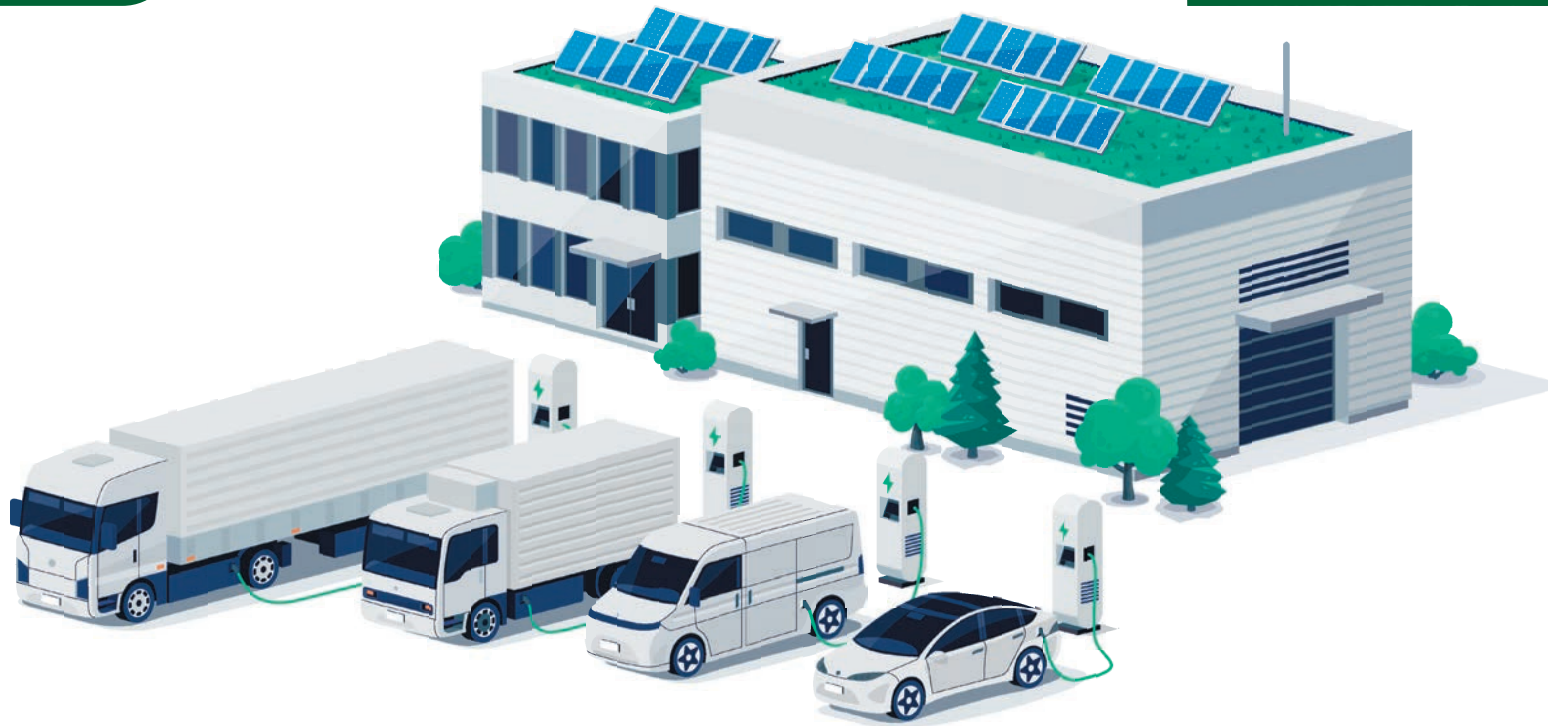
Commercial Energy Solutions

Excess power can be traded to the grid and businesses receive a portion of the revenue, subject to agreement and EBIS Terms & Conditions.

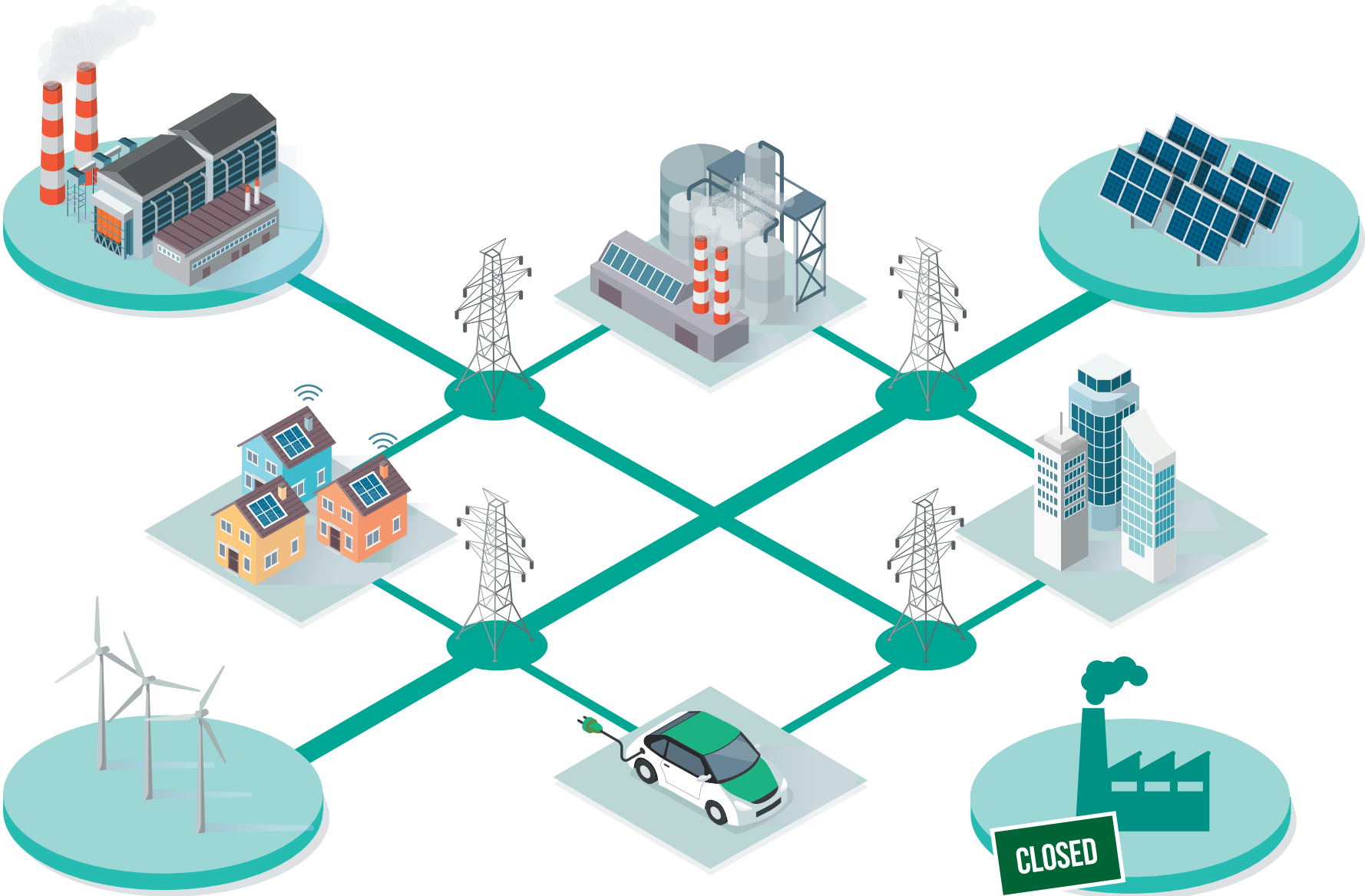
EBIS will work with businesses to utilise their building's roof space to **reduce energy bills** and provide a **green, sustainable business**.

Businesses consume a large amount of electricity in their operations, consequently, resulting in **high energy bills**. Turning the buildings, for example, large sheds, warehouses, office blocks, or multiple smaller buildings roofs into power generation solutions that can **significantly reduce energy costs**. Businesses will be able to operate **larger battery storage solutions** to meet their operational energy requirements. EBIS can provide **tailored funding solutions** to accommodate the larger solution. Covering **CapEx of £100,000 to £30million**. EBIS's **Energy Management Solution** can determine when **high demand periods**, for example operational hours of the business, are for **greater energy efficiency**.

A commercial solution applied to an agricultural site



Commercial Energy Solutions



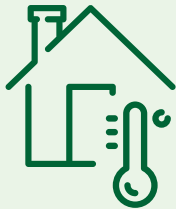
Add-On Solutions



Add-on Solutions

Insulation

To provide home isolation we use the latest cutting-edge insulation technology, which consists of medium density material with a high thermal mass.



It has a heat storage capacity of 1600-2350 J/kgK with the added benefit of dampening and absorbing noise.

Our insulation is easy to install and has a number of other benefits:

- Grown and produced organically
- Renewable and non-toxic to skin and lungs
- Can be grown all year round and takes only 100 days to grow
- Requires 14 times less energy to produce than polyurethane
- Is more effective at capturing carbon from the air than trees, around 1.63 tonnes of CO2 from every tonne
- Made from breathable material that can reduce condensation
- Fire resistant and waterproof

In addition to providing solar and battery solutions, **EBIS** also offers a number of add-ons to bring down energy costs further and improve energy ratings.



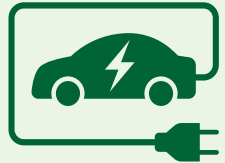
Swimming Pool solutions

EBIS have partnered with Maybury, Europe's leading swimming pool and leisure centre heat management supplier. New electric-based solutions, such as thermal recovery units can be installed, to bespoke requirements. Additional details are available on request for a specialist solution. Our installations typically save 70%-80% on the cost of swimming pool energy costs.



EV Chargers

Electric cars function by plugging into a charge point (Electric Vehicle Charger) and taking electricity from the grid. They store the electricity in rechargeable batteries that power an electric motor.



Heat Pumps

Air and ground source pumps take the warm temperature from the air/ground and use a heat exchanger to compress the air to generate heat.



If the heat is transferred into air it can be used in combination with storage heaters to provide hot or cold air. If the heat is transferred into water, it can be stored in a water tank and used for water-based radiators or underfloor heating.

Power Purchase Agreements



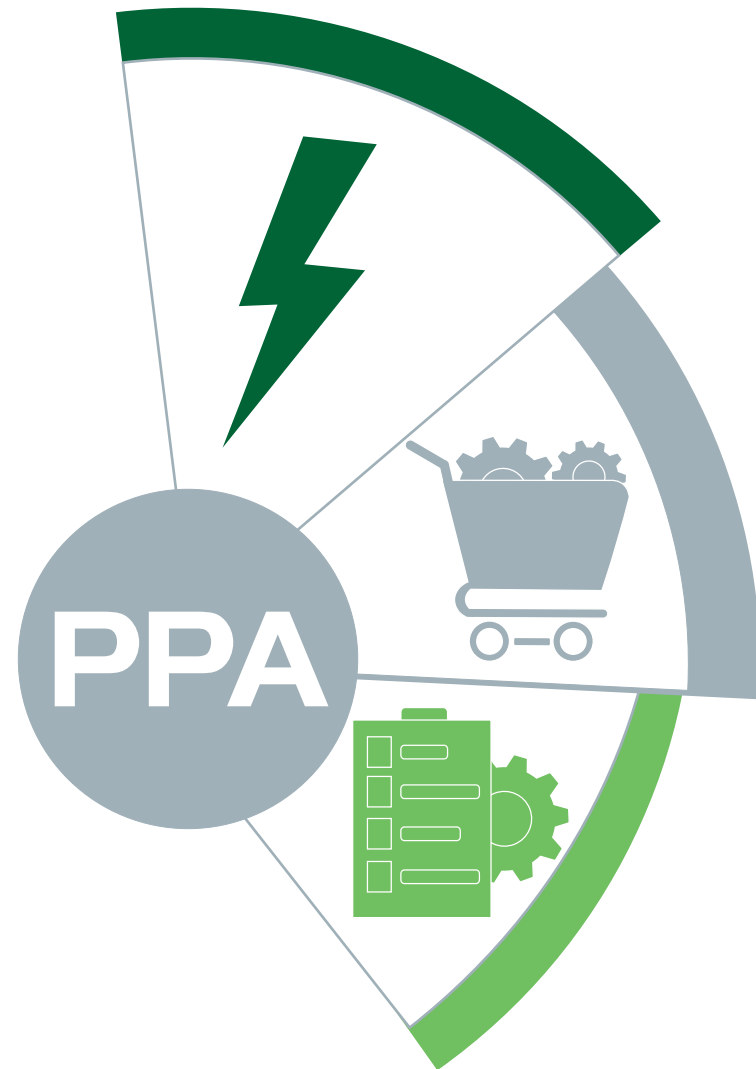
Power Purchase Agreements

EBIS offers Power Purchase Agreements (PPAs), long-term electrical supply agreements between an energy provider and domestic, commercial and industrial customers.

- Bespoke PPAs vary depending on:
 - kWh produced and required
 - Where the energy is coming from (on-site or off-site)
 - Market price per kWh
 - Total cost of project
- As an example, a customer could pay 25p per kWh for electric generated from solar, compared to paying 50p to 80p per kWh from the grid.
- PPAs allow customers to have systems installed for no upfront cost, instead it is spread out over the contract period as a “lease”.
- In some cases, pending clients financial standing, we are able to offer asset finance solutions.

Funding solution

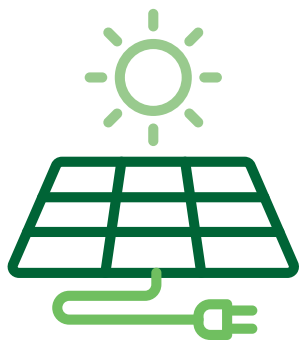
EBIS offers funding solutions for CapEx from £100,000 to £30 million, subject to EBIS Terms @ Conditions.



Frequently Asked Questions



Frequently Asked Questions



Is my business suitable for solar?

Solar is a long-term investment. Although it has some upfront costs, it is very cost-effective to maintain. The benefits are substantial and can repay the initial investment 4 to 10 times, depending on size of system deployed and usage of electric by the business.

The only limitation is the size of the system. Taking a long-term view, it is sensible to build a system that can accommodate future demands on electric consumption, such as electric cars and switching heating to electric. And income can be earned by exporting surplus electric from generation.

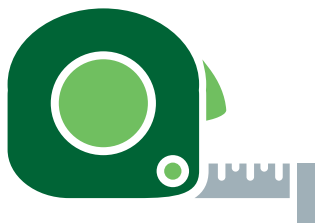


How do I calculate how many panels I need?

- Each 400 watt panel is 1.1m X 1.8m = 2m square
- No planning permission is required, but Councils require a 1m space around the panel area, so we add 25%
- 50 kWp solar system: 125 panels ($250\text{m}^2 + 25\% = 312\text{m}^2$)
- 100 kWp solar system: 250 panels ($500\text{m}^2 + 25\% = 625\text{m}^2$)

You can also use either of the following calculations:

- 6.25m² for each 1kwp
- Divide m² available by 6.25m² to give the number of kwp



What size is right for me?

- For a good combination of size and return, the ideal is a system which is equal to or smaller than the usage (annual in kWh) by no more than 35%-50%.
- For example:
 - A 100 kWp system should have 100,000 kWh to 150,000 kWh annual usage.
 - A 50 kWp system should have 50,000 kWh to 100,000 kWh annual usage.
- Even higher annual electric usage will always give an even better return but the saving as a % of the total electric bill will be smaller.

Frequently Asked Questions



What permissions will I require?

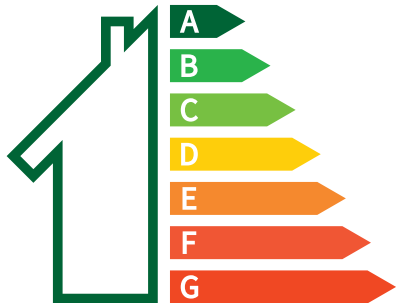
- If the company or a Director / Shareholder (or even their pension fund) owns the property, all you will need is grid permission.
- If there is a landlord, then their permission is usually required. If there is a long-term on the lease such as 10 to 15 years, they will not normally object even for a financed model (but it is at the discretion of the landlord).



What are the finance options?

There are 3 main options. The business could:

- **Outright purchase:** the system will perform well for 30 years
- **Finance agreement:** likely 8% to 10% interest payable pay over a term such as 10 years
- **Power Purchase Agreement (PPA):** contract over 10, 15 or 20 years.



What are EPC ratings?

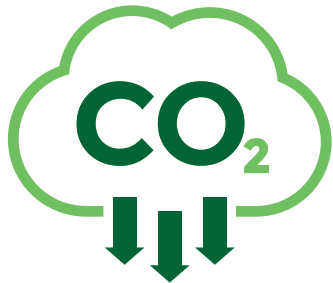
- An Energy Performance Certificate (EPC) rates how energy efficient a property is. An EPC rating will depend on two main things:
 - The amount of energy used per m².
 - The level of carbon dioxide emissions (given in tonnes per year).
- Every property, excluding listed buildings, requires an EPC rating before it can be sold, which will last for 10 years before it needs renewed. EPCs give renters or buyers a rough idea of how energy efficient, and thus how expensive to heat, a property is.

Frequently Asked Questions



Will I need a battery?

- If a business has a flat regular energy usage over a 6 or 7 day operating week, then a battery is probably not required as the solar generated is used at the time of generation.
- However, in the following circumstances, a battery is likely to be needed:
 - If the business has a grid contract accruing extra charges due to 'time of use rates' ('Amber', 'Red') then a battery can be useful to store electric from solar to cover the periods when there are high grid charges. As the extra charges can be 50% (Amber) or even 100%-200% more (Red), the battery will eventually pay for itself.
 - If the business has high fluctuations of energy usage a battery can make financial sense. For example, in some manufacturing or farming there are often moments of high demand and intermittent use. A battery helps smooth those periods ensuring solar is not exported but kept for later use.



What does Net Zero mean?

- Net zero refers to a state in which the greenhouse gases going into the atmosphere are balanced by removal out of the atmosphere. This balance is achieved replacing current high-carbon producing approaches with greener solutions such as solar. **EBIS is a member of the Net Zero Consortia.**

Management Team



Frank Baker, CMG OBE
Chairman

Frank is a businessman and former British diplomat. After spending the early part of his career in Latin America, the Middle East and the US, he headed up the Equatorial African Department in London. He returned to the US in 2003 as the Foreign and Security Policy Counsellor, before being appointed British Ambassador to Kuwait in 2010. Two further Ambassadorial roles followed in Iraq (2014) and Libya (2018).

Frank is the Managing Partner of Baker McKie and Partners, a company that focuses on providing strategic and analytical advice to a wide range of international clients.

He is a member of the Board of Trustees of the British Institute for the Study of Iraq and a member of the Board of Advisors for the Institute for Islamic Strategic Affairs. In addition to his UK honours, Frank is also the holder of the Order of Kuwait (Special Class).



Douglas McKinnon-Snell
Chief Executive Officer

Douglas has extensive experience in international management, with over 30 years of international trade and development of infrastructure projects in Energy and EPC, trade and redevelopment.

An experienced leader of multicultural senior teams, he works side-by-side with FTSE 100 companies, governments, and agencies on international infrastructure projects.

Douglas has been involved in Ministerial developments of Governments throughout MENA, Far East and South America. Douglas is also a member of Chatham House, The Royal Institute of International Affairs.



Martin Griffiths
Consultant

Martin is a seasoned real estate and construction professional, currently working for Capita Plc, with extensive experience in property development, delivery, investment, economics and finance.

A Chartered Construction Manager with over 30 years' experience in the social housing, private residential, commercial and retail sectors, Martin has more recently worked with local government with a current focus on asset optimisation, energy and decarbonisation.

Martin has proven leadership qualities working with and for international blue chip and sovereign wealth organisations on infrastructure projects up to £500m in UK, US\$6bn in MENA region and US\$200bn in Qatar.



Peter Teale
Executive Officer Technology

Peter is an economist and business strategist with a specialisation in renewables. He qualified as a Chartered Accountant and has a degree in commerce from the University of Birmingham.

He has been Finance Director of several companies including Simplyhealth mutual insurance, Virgin cola, ITV sports and interactive division, Timberland Europe and LA Gear Italy.

Peter has worked on renewables and business restructuring projects for major finance companies, including Octopus private equity and Ingenious Media.



Gordon Fleming
Executive Officer Delivery

Gordon has over 35 years' experience in planning, organising and operations in leading training programmes across public and private sector organisations including the foreign office, European Union, the American DOD and London Fire Brigade.

Gordon ensures proper execution at all levels of an organisation and delivers consistency in the delivery and application of training and operating standards across a business.

Gordon is ex-military and is an experienced leader, always ensuring that the programmes and initiatives are consistent with the business overall strategies, objectives and needs, making sure to create and maintain a positive and professional learning environment. Gordon is known for his operational problem-solving abilities.



Michael Bertelsen
Executive Officer Growth

Michael has over 35 years' experience in the real estate industry, working for several high-profile companies, specialising in acquisitions for retail and development opportunities in the UK.

Michael has the expertise to identify undervalued real estate and to provide support in realising the potential of up-and-coming areas. Michael has formed numerous property companies over the course of his career, most recently Arlo Holdings Ltd, which specialises in investment and asset management opportunities in Greater London and strong performing regional centres.

Throughout his career, Michael has worked on several projects across Europe and in North Africa.



Ross Hair
Training and Development

Ross completed an MA in Education at Moray House School of Education at the University of Edinburgh. Ross presented and defended his dissertation "Scottish Physical Education: a missed opportunity to build a healthy nation", which challenged the current norms and perceptions of Physical Education. He continued to expand this work and developed documents aimed at encouraging governmental change of the educational focus in the UK.

Ross completed placements to an exceptional standard at a diverse range of socio-economic schools, including the prestigious George Watsons College. Upon completion of university, in his first year as a Newly Qualified Teacher (NQT), Ross achieved the highest standard of grades by an NQT across Scotland for Physical Education.

contact us
info@ebisgb.com

EBIS GB Holdings Ltd

73 CORNHILL
CITY OF LONDON
UNITED KINGDOM
EC3V 3QQ

COMPANY NUMBER: 14362952

ebisgb.com



EBIS

ELECTRICAL | BATTERY
INVERTER | SOLAR