

# **Funding the green campus of the future**

**Business Solutions from ESB Energy, driving  
decarbonisation to the heart of your business**



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**Universities & Colleges**





# Empowering the future

Climate change is the defining challenge of our time. While progress has been made in the transition to a green economy, much more must be done to ensure the UK meets its target of net-zero greenhouse gas emissions by 2050.

Achieving this goal means revolutionising how energy is generated, used and stored. The government has introduced strategies to decentralise generation, create demand flexibility and improve storage capacity. But it will take more than strategic planning to succeed.

Large energy users in the higher education sector have a particularly important role to play. With stringent public sector carbon reduction targets, Universities face some real challenges, but also stand to benefit from embracing greater sustainability. For many, the prospect is daunting. The opportunities of embracing zero carbon technologies can pale in comparison to the perceived costs of upgrading legacy systems, the potential disruption to classes, and the lack of in-house expertise.

That's where Business Solutions from ESB Energy can help. With a £75million support fund to help large energy users decarbonise their organisations, we have partnered with schools and universities from across the UK to help them realise the benefits of working toward a more sustainable future and a circular economy. Our funded solutions make financing large-scale projects easy and affordable, while our expertise and technology ensure campuses can dramatically reduce energy costs and carbon emissions from day one.

As part of ESB Energy, we have been serving the UK market since 1992. To date, ESB Energy has invested £3 billion in power generation and network assets across the UK, including Carrington Power Station, the most efficient thermal power plant in the country. Our energy supply business serves over 79,000 customers, with capacity increasing as additional renewable generation projects come online.

The transition to a green economy is a certainty. Together, we can make the transition easy, with tangible benefits for your organisation.

Ciaran Gallagher  
Head of Business Solutions from ESB Energy



# Your partner in energy optimisation & decarbonisation

Optimising and decarbonising your organisation's energy is easy with Business Solutions from ESB Energy.

No matter what your in-house capabilities may be, our Energy Experts can help. We provide a range of services and solutions to work with your staff and within your budget. From energy audits and financing, to implementing and monitoring solutions, we offer an end-to-end service designed to deliver continual return on investment.

Our collaborative approach assures transparency and results. Whether the requirement is for a single facility lighting retrofit, a multi-site, multi-technology overhaul, or designing a renewable, behind-the-meter heating and cooling system from the ground up, we work with you to deliver a bespoke solution that works for you.





# Optimise your energy & realise the returns

Net Zero? No problem. Together we can deliver your vision: plan, design, build and finance a greener, brighter future.



## LIGHTING AS A SERVICE

Legacy lighting systems can have a significant impact on an organisation's energy costs and carbon footprint. Newer LED technology can improve lighting energy efficiencies by up to 70%, while reducing maintenance requirements and generating positive cash flow.

With Lighting as a Service (LaaS), we will design, install and maintain a custom solution, with no up-front investment required. Capital costs are offset through service fees, which reflect the customer's reduced energy usage, delivering immediate cost savings and ongoing benefits.

### Some of the benefits of LaaS include:

- Lower Energy Costs
- Carbon Reduction
- Reduced Operating and Maintenance Costs
- Improved Lighting Levels
- Smart Control over Energy Usage
- Improved Cash Flow
- Administration of Grants and Credits



## CARBON ANALYTICS & ENERGY INSIGHTS

Few organisations have a dedicated Energy Manager. That's why we offer our team of dedicated energy engineers and analysts. We work with a variety of cloud-based energy management platforms that can be monitored and analysed remotely. Our experts continually track and measure your organisation's energy usage and carbon emissions to deliver the insights you need to unlock greater efficiencies, reduce energy costs and free up resources.

For organisations with the capacity and expertise to self-monitor, we are a reseller for a high-end cloud-based energy monitoring and targeting system. These platforms offer robust functionality, comprehensive carbon reporting and energy analytics, allowing organisations to monitor the efficiency of energy optimisation projects, track ROI and identify opportunities for greater savings.





## ENERGY STORAGE

In addition to providing a back-up power supply and energy resilience, battery storage solutions also reduce energy costs. Often paired with on-site micro generation technologies such as solar PV, batteries store energy during low tariff periods, so that it can be used when tariffs are higher. Battery storage systems can also provide an additional revenue stream, when used in conjunction with demand response schemes.

Determining the best battery storage system for your organisation begins with analysing your energy usage. With an understanding of how much power is needed and when, we will design a system tailored to the needs of your organisation. If funding is required, we will provide it. We will also procure the technology from leading suppliers, and complete the installation without disrupting business critical activities.

### Some of the benefits of energy storage include:

- Energy Resilience
- Reduced Energy Costs
- Greater Control Over Energy Usage
- Additional Revenue with Demand Response Schemes





# Decarbonise your heat & reduce running costs

Your built environment is here for the long term and so are we. Working with you, our green technologies, expert engineers and data management deliver robust solutions.



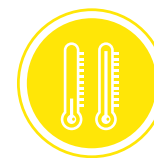
## HEAT PUMPS

Geothermal systems offer significant and long-term energy cost and carbon savings. Electrically-powered Ground Source Heat Pumps use the ambient temperature of the earth to provide heating, cooling and hot water. If conditions are suitable heat pumps can also be used to capture energy from air or waste water.

### Some of the benefits of Heat Pumps include:

- Significant Energy & Cost Savings
- Efficiencies in excess of 500%
- Simultaneous heating and cooling can achieve efficiencies up to 800%
- Benefits as the grid decarbonises
- Additional revenue with demand side response and thermal energy storage

Heat pumps are suitable for projects of any location, our in-house experts will design, build and install a custom solution that ensures your organisation realises maximum energy efficiency and cost savings.



## HEATING & COOLING AS A SERVICE

Heating and cooling bills make up a significant proportion of the running costs of any large industrial or commercial premises. And legacy systems present challenges for organisations seeking to reduce their carbon footprint.

Our Heating & Cooling as a Service provides your organisation with a future-proof, low carbon solution, with no need for up-front investment. We

offer a range of funded and managed off-balance sheet solutions that eliminate risk, while delivering immediate energy cost and carbon savings.

Using a Heat or Power Purchase Agreement, we will design and install a custom Heat Pump or Combined Heat & Power plant to provide your heating, cooling and hot water at a discounted rate.

### Some of the benefits of Heating & Cooling as a Service include:

- Long-term Cost Savings
- Enhanced Energy Management & Cost Control
- Significant Carbon Savings
- Renewable Heating & Cooling
- No Risk



# Decarbonise your transport & move your organisation forward

Connecting and decarbonising communities with sustainable infrastructure through strategic partnerships.

We built the world's first national network of Electric Vehicle charging points. Now, we're offering our expertise to help organisations like yours drive the green energy revolution.



## EV CHARGING

The electrification of transport is an essential component of any decarbonisation strategy. Whether you want to improve green credentials by electrifying your organisation's fleet, or meet the evolving needs of staff and customers, our expert team will deliver the Electric Vehicle (EV) Charging infrastructure that's right for your organisation.

### Some of the benefits of EV Charging include:

- Future-proof Infrastructure
- Carbon Reduction
- Enhanced Green Credentials
- Suitable for Commuters & Commercial Fleets
- Greater Convenience for Staff & Customers

We will work in partnership with you to design, install and maintain a custom charging infrastructure. And with funding available, you can invest in the future, at no cost today.



## HYDROGEN FOR TRANSPORT

Hydrogen vehicles offer another alternative to petrol and diesel. Although less common, we offer Hydrogen for Transport as a supplementary customer solution. Suited to fleets with longer range and faster fuelling requirements compared to traditional EVs, Hydrogen is a proven solution for public transportation.

We have the capabilities to build Renewable Green Hydrogen Generation and Dispensing infrastructure, at the scale required to meet your demand.

### Some of the benefits of Hydrogen for Transport include:

- Faster Refuelling & Longer Range Compared to EVs
- Low and Zero Carbon Options Available
- Suitable for Commercial Fleets & Public Transportation



# Decarbonise your energy & increase your resilience

We're by your side. Benchmark and optimise your energy approach with insight and support from our experts.

ESB Energy helps our partners realise significant cost and carbon savings with renewable technologies that deliver behind-the-meter supply resilience.



## SOLAR

Solar has become one of the most popular sources of renewable energy, offering a zero carbon solution that delivers a significant return on investment, with the ability to scale. And despite what you might expect, Solar panels can generate energy on cloudy days.

ESB Energy integrates Solar Photo Voltaic (PV) with Solar Thermal

**Some of the benefits of Solar include:**

- 100% Renewable Solution
- Significant Cost & Carbon Savings
- Works in All Weather
- Scalable & Adaptable

technology to maximise your organisation's ROI and its CO2 savings. Our industry-leading generation technologies provide clean energy, while stabilising costs. Available as a funded solution, organisations can take advantage of immediate savings, while offsetting project and maintenance costs.



## WIND

As the fastest growing renewable energy source currently available, Wind Energy plays an essential part in achieving a zero carbon future. Through ESB Energy we are committed to delivering a sustainable and competitive energy supply.

Ongoing investments in innovation and expertise allow us to continuously

improve wind as an energy resource. We offer long term contracts and financing on large-scale projects. This ensures the highest efficiency and cost effectiveness, while significantly reducing investment risk. As with Solar PV, ESB Energy integrates Wind Generation with other technologies to maximise ROI.

**Some of the benefits of Wind energy include:**

- Energy Price Stability
- Energy Supply Resilience
- Enhances Green Credentials
- Maintenance Covered
- Warranty Protected



# Go further, faster with our funded solutions

Setting goals for 2025 and beyond? Our funding options, with innovative green engineering will get you there.

Concerns about cost or lack of in-house expertise shouldn't get in the way of implementing your carbon reduction strategy. ESB Energy combines our financial strength, market expertise, energy management and optimisation services into a single package to deliver tangible cost and carbon savings for your organisation.



### CORPORATE POWER PURCHASE AGREEMENTS

Power Purchase Agreements (PPAs) help organisations achieve energy sustainability targets by mitigating the impact of rising wholesale energy costs.

With the ability to lock in future energy costs at below-market rates, PPAs help organisations budget and forecast more accurately, while supporting large-scale decarbonisation projects.

### CAPEX FUNDING VIA LONG-TERM CONTRACTS

CapEx Funding offers a turn-key solution, free of charge. We take care of everything, from planning to installation, admin and maintenance. You pay only for the zero carbon energy produced, at an agreed upon low rate, for a set term. With no equipment lease involved, and

predictable energy savings delivered from day one, this off-balance sheet solution improves your organisation's EBITDA (Earnings before Interest, Taxes, Depreciation and Amortisation), while boosting its green credentials.

**Some of the benefits of Funded Solutions include:**

- Offsets Costs
  - Supports Carbon Reduction Strategy
  - Reduces Energy Costs
  - Reduces Risk
- Frees Up Resources
  - Facilitates Organisational Growth
  - Off Balance Sheet Solution
  - Long-term Solution

## Solutions at a glance

ENERGY SERVICE	BENEFIT	OUTPUT CAPACITY	AVAILABLE AS A SERVICE	CAPEX FUNDING AVAILABLE	PPA AVAILABLE	GRANTS AVAILABLE	SMART GRID COMPATIBLE	AVAILABLE BEHIND-THE-METER	STORAGE CAPACITY
CARBON ANALYTICS & ENERGY INSIGHTS	Decarbonisation & Optimisation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
LIGHTING AS A SERVICE	Optimisation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
ENERGY STORAGE	Decarbonisation & Optimisation	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HEAT PUMPS	Decarbonisation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HEATING & COOLING AS-A-SERVICE	Decarbonisation & Optimisation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
EV INFRASTRUCTURE	Decarbonisation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
HYDROGEN FOR TRANSPORT	Decarbonisation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SOLAR	Decarbonisation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
WIND	Decarbonisation	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>





# We are ESB Energy

For over 90 years we have provided our customers with safe, reliable energy. As part of Ireland's Electricity Supply Board, we brought the transformative power of electricity to the most remote parts of the country.

Since 1927 our business has grown from electricity generation, transmission, distribution and supply, into a total energy company. Today, we deliver our energy expertise and technology to over 120 countries around the world.

We have invested over £3 billion in the UK's energy infrastructure since 1992. From the Corby and Carrington Power Stations, to the Galloper Offshore Wind Farm and the Tilbury Green Power Plant, we have worked tirelessly to bring efficient, renewable energy online.

Our partnership with Transport for London has driven sustainable change by creating a next-generation charging infrastructure for Electric Vehicles. Ongoing projects will bring even more sustainable energy solutions online over the coming years.

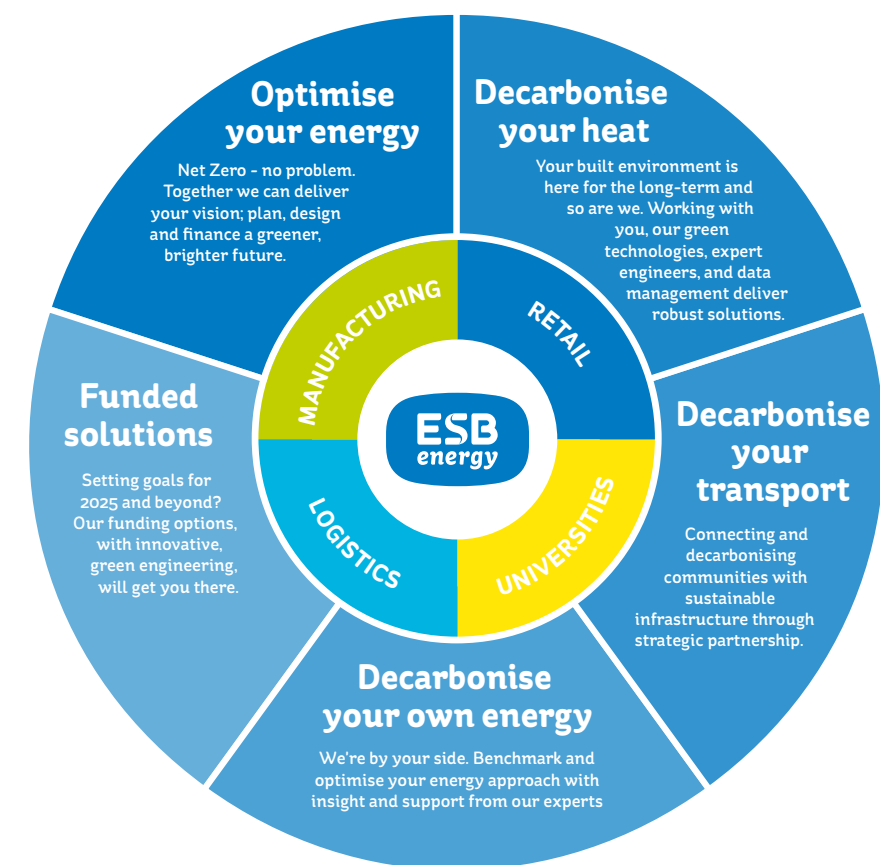
Through constant innovation and a commitment to clean energy, we are creating a brighter future for our customers.

ESB Energy drives sustainability and decarbonisation right to the heart of business strategy, providing organisations with accessible funding, innovative and future proofed programmes. Together, we are building a brighter future for business in the UK.

Let's create a brighter future for your organisation.

Email us at [BusinessSolutions@esbenergy.co.uk](mailto:BusinessSolutions@esbenergy.co.uk)

Visit us at [esbenergy.co.uk/business-solutions](https://esbenergy.co.uk/business-solutions)







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**Let's make the future brighter, together.**