



CHANGING THE WORLD OF ENERGY

Welcome to Your Energy Future

The Immersa approach offers key benefits to businesses and organisations through on-site renewable energy generation with battery storage solutions. This saves money and makes energy use more sustainable as we strive towards net-zero. We use unique modelling software to analyse our clients' energy supply needs now and in the future. We provide a tailored energy system, which is competitive, cost-effective, and enhances your business credentials for Corporate Social Responsibility.



Supporting You to Energy Independence

Become energy independent with our innovative approach to consultancy and implementation of renewable solutions.



Feasibility

Unique modelling to analyse energy supply needs now and in the future.



Planning

End-to-end technology options to support your renewables journey.



Design

We design and model the solutions that add value to you.



Support

The guidance for you to take control of your energy future.

Put your Energy Future in your own hands

With energy prices predicted to double in the coming years, it is time to think about your business and how you can use renewable energy solutions to take control of your energy future.

Immersa provides turnkey renewable solutions which put you in the driving seat when it comes to your energy usage and how you can benefit from investing today in a zero-carbon future. With energy prices predicted to double in the coming years, it is time to think about your business and how you can use renewable energy solutions to take control of your energy future.







Commercial Battery Storage



Having the ability to store your renewable energy is a game-changer for businesses across the globe. The evolution of commercial battery storage solutions allows organisations to control their energy now as they plan for the future.

Installing battery storage solutions on-site offers your business the ability to store and discharge electricity to meet demand and potentially operate independently from the grid with backup power when demand is high.

Immersa turnkey solutions for battery storage include analysing your business to tailor the best technologies. We then design and plan your system through installation and aftercare.



Utility Scale Battery Storage



The UK's 2050 net-zero target is ambitious, but there needs to be a significant seachange in the harnessing of renewable energy. Now is the time for commercial investors to be part of our renewable future.

Estimates show renewable generated capacity will need to increase to almost 60% by 2030 if there is any prospect of meeting the 2050 target. Battery storage provides grid operators with the tools and flexibility to deal with this increased supply variability and meet demand.

Utility-scale battery storage capable of harnessing high generation periods, stored during low demand and capable of feeding into the grid when demand is high, will be critical to a sustainable, low-carbon renewable future.









Residential Battery Storage

Before you consider installing Solar PV, ensure you have thoroughly researched your energy storage options. Home-energy storage will reduce the electricity you use from the grid and cut your bills. If you are off-grid, it can help lessen your reliance on fossil fuel and provide backup power generation.

An Energy Storage System (ESS), commonly known as a solar battery, will allow you to capture electricity for use on demand. For example, you can store the electricity your solar panels generate during the day and use it at night.

Upcoming changes in energy tariffs will allow you to store energy within your ESS and use it at peak times when electricity is more expensive, letting you use grid energy only when it is less costly.

EV Charger

The UK Government has an ambitious target to ban the sale of new 'wholly powered' petrol and diesel cars and vans by 2030. There is an additional provision for the sale of new hybrid vehicles until 2035.

As a result of this legislation, there has inevitably been an increase in electric vehicle sales. The all-electric share of the UK car market had grown to 6.6% by the end of 2020. Although still low, it is a significant increase from the 2018 figure of 0.7%.

At present, the UK electric-car charging infrastructure is disjointed and complex. Still, with the anticipated leap in Electric Vehicles (EV), you can expect significant developments over the next few years.









Rooftop Solar

Immersa has been working with clients across multiple sectors for many years. Our team of renewable experts have worked on projects which generate low carbon electricity and manage commercial carbon footprints.

We provide turnkey solutions, from survey through to connection, with a dedicated project manager there every step of the way.

Ground Mount Solar

Immersa provides unique turnkey renewable solutions, including consultancy, design and project management for ground mount solar PV. Our team will assist with planning and funding through to construction and power purchase agreements (PPA).

Ground mount solar PV offers several benefits over other solar options, primarily producing utility-scale output and expansion options if the land and infrastructure allow. Immersa has some of the industries leading consultants and renewable energy specialists to help you maximise your energy yield from any ground mount installation.

If your project is not utility-scale, a new Smart Export Guarantee replaced the Feed-In Tariff. Our advisers will help you find the best solutions to fit your project.



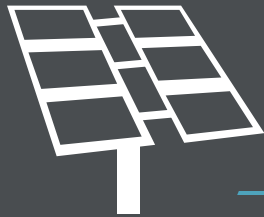


We have three divisions that provide distinct service offerings:

These divisions are strategically aligned to serve customers across three separate end markets. Our Commercial, Utility Scale and Residential divisions provide a turnkey solution for you to harness renewable energy opportunity.



Residential Battery Storage and Solar Systems



Commercial Solar and Battery Systems



Utility Scale Battery Storage Systems

Drake House | Case Study



Every company has key objectives across the business. These include maximising productivity, reducing costs and meeting corporate social responsibility objectives. The good news is that renewable energy can be part of the solution to all three.

PROJECT OVERVIEW

Drake House in Dursely, Gloucestershire, a multiple tenant building, is the head office of Immersa Limited. Owned by Solent Stevedores, one of the UK's largest terminal and port operators, the building also serves as their head office.

The landlord asked us to survey the building to provide them with a feasibility report on adding solar PV to the building. As a forward-thinking organisation, Solent Stevedores wanted not only to boost their green credentials but look at the long term energy costs for the offices.



CONSULTANCY

After the completed site survey, including an energy bill review, our team reported that the best solution was to install Solar Panels on the South West facing roof and the two other roofs facing East and West.

We estimated that the solar PV installed onto the roof would produce 125 kW, enough to meet the clients' requirements for internal energy and provide them with revenue from the exports to the grid.

Our survey also highlighted the potential to provide enough energy to charge a battery storage system. Our proposal specified installing two T30 or T50 Inverters, with battery storage capacity added further down the line.



SOLUTION

The landlord accepted our proposal and finalised the quotation allowing Immersa to install the solar panels across the three roof areas. The South-West facing roof of the building housing Solent Stevedores offices had a useable roof area of approximately 8.5 m x 30 m to install the solar panels, which would feed into a 40 kW DC inverter.

In addition, the West and East rooftops each had approximately 8 m x 30 m of useable solar roof space, with the power generated from these areas fed into an 80 kW DC inverter. The solar array combined with the inverters produced sufficient energy for the buildings daytime requirements and excess export revenue.

It is essential as a renewable energy consultancy what our green credentials mirror our clients. As Immersa's head office is within Drake House, this project not only benefitted our client and landlord but reflects our mission to create sustainable and cost-effective renewable projects across the UK.

As well as the solar panels and inverters, we also installed several EV charging units. We are currently processing data from the new load profiles and the EV chargers, allowing us to give feedback to the client.

Part of the long-term project plans is to install a battery storage system, with the load profile data allowing the client to decide the best time to add the battery.



Eastwood Park | Case Study



Eastwood Park in South Gloucestershire has had a long and illustrious history as a training facility since WWII. Used over the years by the Home Office, UK Police forces and the NHS, it is now privately owned and continues to provide world-class training.

PROJECT OVERVIEW

Eastwood Park Training has a reputation for consistently delivering courses and learning opportunities to the highest possible standards, with renowned experts specialising in multiple fields.

Built within the grounds of the existing 19th-century mansion house is a new 3000 m² purpose-built training centre replacing several smaller buildings which were no longer suitable for modern training requirements.

The new centre will not only create a great learning environment for those training at Eastwood Park, but it also presents a unique setting for private sector healthcare businesses to partner with the organisation. The centre offers opportunities for research and testing, seminars, a showroom and a medical environment for demonstrations and trials.



CONSULTANCY

The owners appointed Immersa to survey the new training facility to establish its capabilities for renewable energy solutions. Eastwood Park wanted the new building to reflect the Boards vision to provide internationally recognised training and enviable environmental sustainability.

As the facility was new, there was no existing energy usage data to analyse for modelling purposes. Our project manager obtained an overview of the predicted day-to-day use of the building, including energy efficiencies incorporated into the construction. Our Q&A also established the electrical equipment fused or training to gain an overall picture of the expected energy use.



SOLUTION

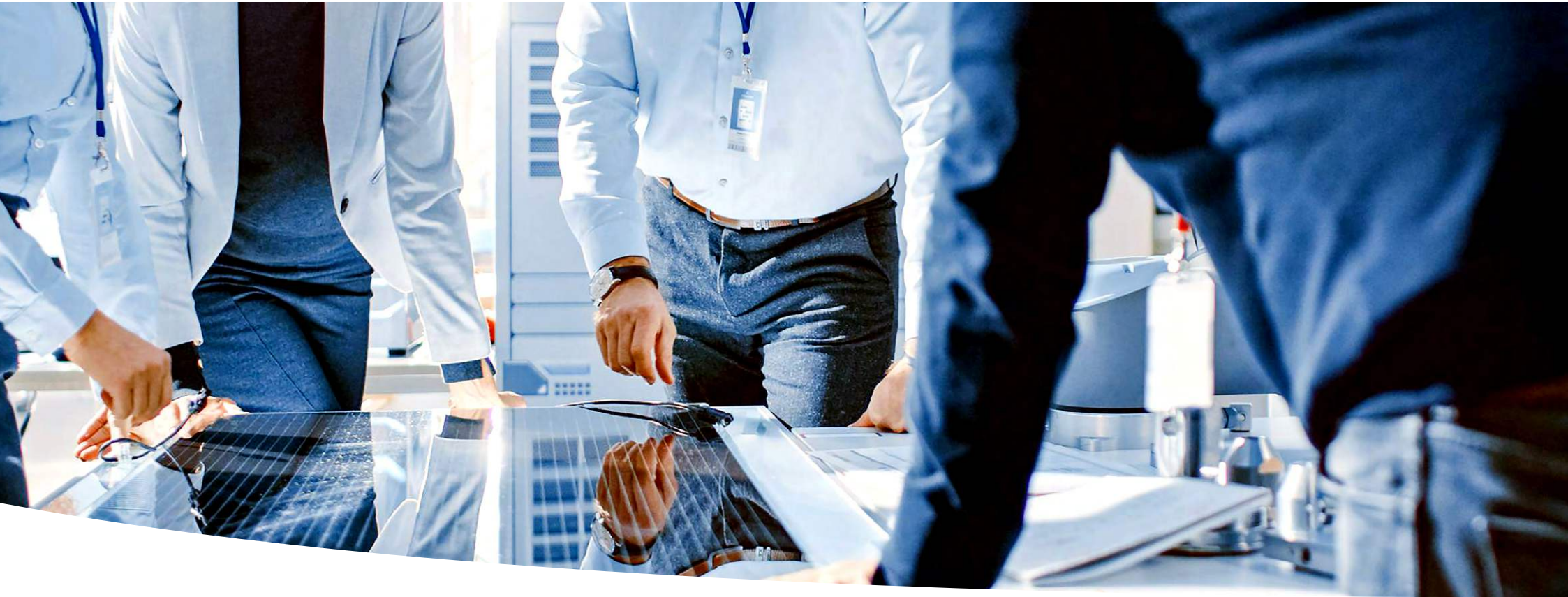
A 144 kW solar array totalling over 500 panels was installed on the roof areas of the new building. We also installed three Solis 50 kW DC inverters. Over 12 months, we will analyse the energy data to establish usage patterns to report back to Eastwood Park on the viability of adding a battery storage system to store any excess output from the solar.

Part of our remit was to analyse the mansion house, which is mainly used as an events facility to establish its capability for adding solar to this grade II listed building. However, due to COVID-19, this is currently on hold and should be reviewed in the future.

We are in continual dialogue with the owners and their construction contractors, who are excited to press on with additional project elements once the in-facility training restarts. Once sufficient data on energy consumption is available, we will move onto the battery storage phase and introduce solar PV to the mansion house roof.



The University of Sheffield | Case Study



The University of Sheffield Energy Institute has world-class battery research and testing facilities. The Institute is committed to furthering high-quality research in the field of energy storage. Immersa has parallel ambitions to provide renewable solutions across multiple sectors while embracing the latest advances in energy storage solutions.

PROJECT OVERVIEW

This research and development project aims to harness new renewable technology into the university via a 600 V DC BUS. The new technology consisted of various chemistry fuel cells and solar.

By Utilising the existing solar installed within the university, our remit was to provide a suitable Energy Storage System to store the energy produced. The trial system would look at new technologies which will require online remote support, including remote firmware upgrades, software adjustments and reconfiguration of the DC Charges and the Power Control System.



CONSULTANCY

As one of the UK's most forward-thinking renewable consultants, Immersa has a proven track record in providing client-focused solutions using technology that performs in the most stringent conditions. Once we have established the full extent of the client's needs, we provide the best solution to ensure we futureproof the technology as much as possible.

The project will be completed in several stages; the first stage will be to connect the solar PV to the battery system as a DC Coupled unit directly charging the battery and supplying the load. The second phase will be to use the fuel cells via an additional DC/DC converter to run a 600v DC bus which will then be connected to the battery using the battery DC to DC converter but without the Maximum Power Point Tracker (MPPT) Control.



SOLUTION

Specifying the correct energy storage system is critical to any project, matching expected capacity with a robust solution. Immersa partner with the best manufactures around the globe to provide cost-effective, quality hardware.

We specified the Alpha ESS T100 Energy Storage System (ESS) ideal for commercial and industrial applications, matching the project's criteria. With a 120 kWh capacity, the T100 is compatible with new installations and retrofits. German designed, these units have superb performance and a long lifespan.

Alpha ESS is one of the leading energy storage solutions and service providers in the globe. The company specialises in the residential and commercial market, aiming to deliver the most cost-effective and fit-for-purpose solutions. As the UK partner for Alpha, we had no hesitation in recommending this unit.

We look forward to continuing to work with The University of Sheffield and seeing the results from their research and development, which will allow Immersa and the industry as a whole to develop at a faster pace as we strive towards net-zero goals.



Battery Storage - Data Mining Centre | Case Study



Harnessing renewable energy sources of sufficient power to perform in high usage data centres has been the goal for many businesses. Data mining is a controversial industry due to its high energy usage profile and subsequent high running costs.

PROJECT OVERVIEW

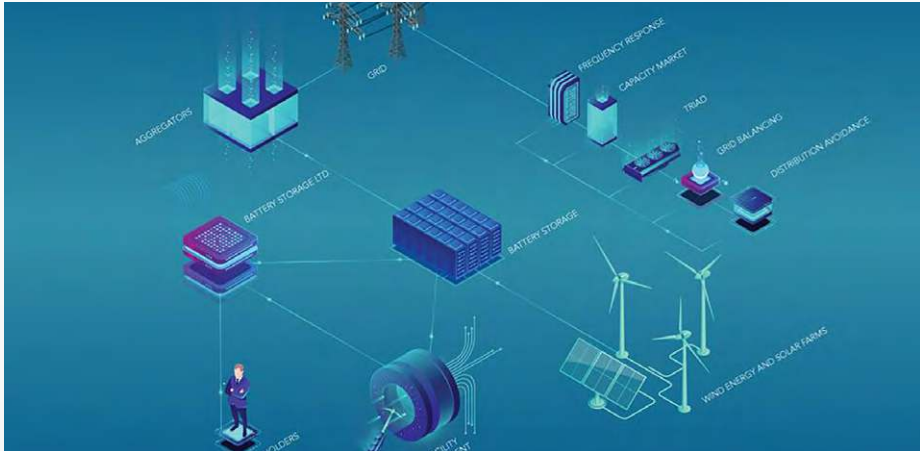
Battery Storage Ltd is an operator of data centres, utilised primarily for cryptocurrency mining and outsourced services for the online gaming industry. They are seeking to develop a 10 MW facility in Glasgow. Data mining is a controversial industry due to its high energy usage profile. Additionally, the cost associated with this activity is extremely high.

CONSULTANCY

Immersa analysed the usage profile of the data centre and provided a commercial appraisal of the balancing services market. Immersa looked at future trends and technology advancements and how these would affect capacity over the coming years.

SOLUTION

60 MW Lithium-ion battery storage facility attached to the data centre to store renewable energy at a time of oversupply, allowing for peak shifting of the power requirement of the data centre while additionally allowing participation in National Grid balancing market.



Energise Barnsley | Case Study



A long-term collaborative project to bring renewable energy storage solutions to capture power from solar PV installed on Barnsey Council housing stock is a shining example of how the industry can create a sustainable future.

PROJECT OVERVIEW

Energise Barnsley is the UK's largest local authority and community energy rooftop Solar PV and battery storage project. A Social Enterprise Company with key project partners, including Barnsley Council, owners of the homes where the solar PV is installed. The Council has worked hard with the Energise Barnsley team to develop protections within the solar licence and lease to give robust protection for the cash flow over the project life.

CONSULTANCY

Energise Barnsley has the vision to create sustainable and cost-effective renewable solar PV and energy storage systems (ESS) within council housing stock. This vision parallels that of Immersa who were proud to be part of this ongoing project. Our consultancy experience and knowledge of the ESS market helped bring benefits to householders and contributed to valuable research.



SOLUTION

The initial battery rollout for Energise Barnsley and Barnsley Council was the Smile B3 2.9 kW battery and M4856P expansion battery with Immersa providing delivery, installation and commissioning service.

The initial trial has successfully concluded that batteries can be retrofitted into homes, and perform to the manufacturers stated capabilities, whilst increasing the benefit of residential solar generation and help balance the local low voltage network.

Energy Provider - ESS | Case Study



A long-term collaborative project to bring renewable energy to households across the UK with our energy supply partner.

PROJECT OVERVIEW

Our client is the UK's biggest green energy supplier, providing all members with 100% renewable electricity. They ensure every unit used by its members is put on the grid by a renewable source, including solar, wind and hydro. They collaborate closely with local authorities, housing associations and community energy projects to create sustainable renewable energy for homes across the UK and other parts of the world.

CONSULTANCY

Our client's vision for a green and cost-effective energy future parallels the ethos of Immersa, and we were delighted to be engaged by them to supply the battery storage solution for this project. Our initial remit was to provide 75 domestic units following our successful partnership in delivering domestic battery and installation rollout to their members as part of a trial.

SOLUTION

To date, the project has been very successful, with 50 batteries installed in homes, with saving predicted to be an average of £460 per year. The energy supplier has reported that members have changed their behaviour, using less or cleaner energy.



Halo Project Kilmarnock | Case Study



Immersa leads the way in consulting and supplying renewable energy solutions throughout the UK. Our client's renewable energy ambitions match our innovative approach to harnessing power.

PROJECT OVERVIEW



HALO is an imaginative, innovative and inspirational regeneration initiative to revitalise Urban Cities and Towns of the UK. A first for Scotland is HALO Kilmarnock at the heart of the town centre.

The HALO project will support the growth and resilience of the Ayrshire economy. HALO will create a dynamic commercial, educational, cultural, leisure and lifestyle quarter of the town, fuelled by renewable energy, where people can live, work, learn and play.

The 28-acre urban park, formerly the home of Johnnie Walker, the world's leading Scotch whisky, will generate £205 million in GDP and stimulate 1500 jobs.

HALO Kilmarnock is a development company formed by Macklin Enterprise Partnerships and The Klin Group, bringing together a highly experienced property development team with the skills, resources and capacity to deliver unique regeneration projects.

SOLUTION



Immersa supplied a containerised battery solution. An Alpha ESS Storion T50 / 154 kWh with 1.00 S 27 x M48112-s 5.73 kWh (C1) battery. We worked with the electrical contractor to allow the main building to increase the amount of self-generated Solar PV energy consumed on-site rather than exported to the grid.

CONSULTANCY



The focal point of HALO will be an Enterprise and Innovation Hub created to stimulate digital learning, inspire innovative thinking and provide a conducive environment for spin-out, new-start, scale-ups, digital, manufacturing and cyber businesses.

Part of the Halo project tasked the electrical contractor with providing renewable solutions to help power this energy-heavy project. Halo has a zero-carbon vision for all its projects. The HALO will provide a sustainable community approach to a net-zero carbon mixed-use development providing jobs, economic growth, skills development, access to employment opportunities, clean energy and housing.

Immersa analysed the information provided to specify the best solution for the project budget.

Strawberry Property | Case Study



Strawberry Property own and manage HMO accommodation (House of Multiple Occupation) in Bristol. As a company with corporate social responsibility in its DNA, they wanted to help reduce the utilities costs for tenants.

PROJECT OVERVIEW

As a leading Bristol property development and management company Strawberry Property has strived to create high-class accommodation which reflects the love they have for their city. To help provide easier rental pricing in the House in Multiple Occupation (HMO) marketplace, they include the cost of the electricity within the rent. Strawberry Property was looking to reduce electricity costs within the properties and push forward with their corporate social responsibility and green credentials.

They had looked at renewable solutions in the past with other providers, but due to an inability to fully understand the requirements and fix the installation costs, they had shelved until a later date.

SOLUTION

Immersa specified 3/5 kW roof-mounted solar for each property and the installation of monitoring equipment to understand each property's usage profile and analyse the potential for battery storage if there was a power excess.

As this is an ongoing project we continue to work with Strawberry Property and offer advice on Energy Storage Systems as required.

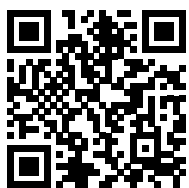
CONSULTANCY

There are a wide variety of property types in the Bristol HMO market, from large mid-Victorian terraces, converted high street shops and offices and modern apartment blocks. Due to the age and the building materials used in construction, and the level of upgrading carried out over the years, the assessment of each had to be tailored to match each properties characteristics.

Every property varies when it comes to energy usage down to the individual accommodation units. Immersa analysed each separate utility bill to provide the solution and offer advice on making the properties insulated to maximise the benefits of solar PV.

TAKE

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Our advisers are here to guide you through the turnkey renewable technology options available and make energy work for you.

Call us on +44 (0)1453 545222 or scan the QR Code to visit our enquiries support portal.

CONTROL

Immersa

Suite 4F, Drake House, Long Street, Dursley GL11 4HH T 44 (0)1453 545222 E info@immersa.co.uk

www.immersa.co.uk