

nes

power for good





RES is one of the world's leading renewable energy project developers. Drawing on decades of experience in the renewable energy and construction industries, RES has the expertise to design, develop, construct and operate projects of outstanding quality.



WHO
are we?



RES's low-carbon head office

Mynydd Clogau, Wales

RES is one of the world's leading renewable energy project developers. It takes outstanding skills to deliver outstanding projects and we have developed over 4.5 GW of capacity over the last 25 years.

Innovation. Reliability. Expertise. This is what we build the business on and that's what makes us a leader in the sector.

In the quarter of a century since RES was formed, we have played a central role in the development of the global renewable energy market and we have helped to move the sustainable energy debate from the margin to the mainstream.

The renewable energy revolution offers huge environmental and economic benefits, and our technical expertise and unrivalled experience is already playing a leading role.

The twin challenges of climate change and energy security are now undeniable. We aim to tackle them both by developing, constructing and operating renewable energy projects of outstanding quality and value.



WHY
are we
different?



OUR EXPERIENCE

We are pioneers of wind turbine technology and our experience of large-scale wind farm development has given us industry-leading skills and expertise. With several thousand megawatts of wind energy capacity built around the world since our first wind farm in 1992, our portfolio is one of the largest in the industry and our reputation for quality and delivery has unrivaled.

In the UK, RES and its partner companies have an enviable track record in biomass, solar and ground source energy, having delivered thousands of renewable energy projects.

OUR ACHIEVEMENTS

RES has stood at the forefront of renewable energy development for 25 years with an impressive track record in project delivery around the world. The work done by RES and RES people has been acknowledged with a number of awards for commercial success, environmental commitment and innovation, including the Queen's Award for Enterprise in the Sustainable Development Category, the Sunday Times Green List, and the Colorado Excellence in Renewable Energy Awards.



PHOTOS: CHRIS WHITEHEAD



OUR COMMUNITY ROLE:

RES encourages staff to share their skills and knowledge outside of their working environments and we support a number of charitable, voluntary and educational initiatives. All our projects go through extensive community consultation to ensure that they bring benefits to local people and businesses and we are proud of the positive relationship we enjoy with the public as a result.



PHOTO: ESLER CRAWFORD

Construction at Callagheen Wind Farm



PHOTO: CHRIS GREGORY

DEVELOPMENT CAPABILITIES

RES has a team of development managers with the knowledge and expertise to deliver projects of the highest quality.

TECHNICAL CAPABILITIES

A wide range of technical skills are required to develop, construct and operate a Renewable energy project. RES has all these skills in house, enabling us to optimise every project.

ENGINEERING CAPABILITIES

At RES we understand that it takes outstanding engineering skills to guarantee the delivery of high-quality projects. RES has one of the most experienced teams of engineers in the industry.

WIND TURBINE PROCUREMENT

RES is independent of any wind turbine supplier and has strong relationships with the main suppliers. We monitor technology developments to ensure the latest technology can be brought to projects effectively and future proof our projects.

CONSTRUCTION CAPABILITIES

Our construction teams have the capability to deliver the construction of wind farms on a turnkey basis; our track record of delivery on time, to budget and to client's specification has been demonstrated through numerous projects.

COMMERCIAL CAPABILITIES

The development of a renewable energy project requires many inputs, an important element of which is the commercial package required for construction of the new generating facility.

HEALTH, SAFETY, QUALITY AND ENVIRONMENT

Our dedicated team of professional in-house Health, Safety, Quality and Environment Advisors provides support and advice throughout all phases of a project. RES is at the forefront of health and safety development in the renewables sector and is committed to improving standards across the industry.



WHAT
do we do?



RES develops, constructs and operates renewable energy projects worldwide.

Our core activity is the development and construction of wind farms, both onshore and offshore. We have installed several thousand MW's of wind energy capacity and have a significant pipeline of projects under construction and in development. RES is also an independent power producer - we own and operate a growing portfolio of wind farms.

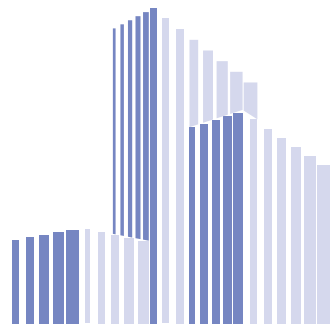
RES is involved in the development of large-scale solar, marine and biomass power plants. We have the know-how, the resources and the project management capabilities needed to develop, construct and operate large scale, grid-connected renewable power generation plants.

In the UK, RES delivers on-site renewables for the industrial, public and commercial sectors and we are unique in offering all the main technologies for low-carbon heating, power and cooling: solar PV and thermal, biomass and ground source energy.

Through our subsidiary Inbuilt, we provide consultancy expertise associated with the delivery of sustainable built environments.

WIND
energy

MARINE
energy



50,000
households powered
by Sweden's largest
onshore wind farm

RES has built Sweden's largest onshore wind farm. Every year the 95.4MW Havsnäs wind farm generates electricity equivalent to the annual consumption of approximately 50,000 Swedish households.





PHOTO: CENTRICA

Lynn and Inner Dowsing, UK

RES has been leading the field in wind energy development worldwide for more than a quarter of a century.

Our in-house skills encompass all aspects of development - site prospecting and assessment, wind farm design (for maximum power performance and minimum environmental impact), through to the planning stage, construction of projects, right up to the operation & maintenance of a generating wind farm. We ensure projects are designed to maximise the power output, while maintaining our reputation for a sensitive and consultative approach to the environment and local communities.

The RES Group has now successfully developed more than 4.5GW of wind energy capacity worldwide. RES also plays a leading role as an owner and operator of wind farms.

In the Offshore sector, RES Offshore offers integrated development, engineering, construction and O&M services for utility-scale renewable energy projects. From offshore wind to wave and tidal, we bring to projects the considerable skills and experience that we have acquired over 25 years in the renewables industry. RES Offshore can provide its services as defined packages of work, or as an integrated part of the owner's delivery team.

PHOTO: JULIA K RHODES

BIOMASS energy



A 100MW biomass power project being developed by RES in the North East of England will provide jobs during construction and operation and contribute to the growth of the region as a hub for renewable energy technology.





RES is a leader in the provision of both renewable heat and electricity using sustainable biomass resources.

In the electricity sector, RES is a developer of large-scale biomass power projects. Biomass is a sustainable and secure energy choice. Using an abundant fuel and tried-and-tested technology, biomass power plants can help meet renewable energy targets, cut greenhouse gas emissions, and provide a reliable and secure electricity supply for homes and businesses. Large biomass projects also bring wider social and economic benefits such as 'green collar' jobs and regeneration at a local and regional level.

The development of a biomass power project includes rigorous assessment in order to minimise any potential environmental impacts and maximise its environmental benefits. RES is committed to the highest standards of sustainability and responsible development for all its renewable energy projects.

Drawing on its 25 years' experience in renewable energy development and strong track record in project delivery, RES brings its considerable engineering, technical, environmental and business development expertise to a sector with huge potential.

And in the on-site renewable energy sector, RES and its subsidiary Wood Energy offer the supply and installation, operation and maintenance of biomass boilers for heating and hot water for the public, commercial and industrial sectors.

SOLAR energy



PHOTOMONTAGE OF THE PROPOSED PUIITS CASTAN, AUDE FRANCE

The Puits Castan solar plant will save nearly 2,000 tonnes of CO₂ annually and will provide green electricity to meet the needs of approximately 2,400 people every year.





RES is involved in the development of medium to large-scale solar power plants utilising either Photovoltaic power (PV) or Concentrated Solar Power (CSP). We have the know-how, the resources and the project management capabilities needed to develop, construct and operate solar fields for large scale power generation connected to the grid.

With enough solar energy reaching the earth's surface every hour to provide all the power the world needs for a year, solar is recognised as a key long-term energy solution. There is huge untapped potential and as the technology gets cheaper and conventional energy prices rise, it is an increasingly economic choice.

Solar Thermal Power plants use the energy from the sun to generate heat which can be transformed into electricity. Concentrated Solar Power (CSP) technology uses solar collectors to capture and then concentrate the sun's rays into high-temperature thermal energy which drives a conventional power cycle, such as a steam turbine or a Stirling engine, to produce electricity.

In the UK, RES and its subsidiary PV Systems, offer the supply, design and installation of solar photovoltaic solutions for the public, commercial and industrial sectors.

ON-SITE renewables



The National Assembly for Wales's Senedd is heated by a 360kW biomass boiler installed by our subsidiary Wood Energy and has helped the building achieve top marks for sustainability.





Walbottle Campus, England

Working with the UK's leading renewable energy technology specialists and drawing on decades of experience in the renewable energy and construction industries; we deliver biomass, solar PV and thermal and ground source energy. RES can offer a wide range of the best options currently available for retrofitting or new-build.

RES has developed an award-winning photovoltaic slate. The slates are innovative roof-integrated photovoltaic solar slates. They are efficient, reliable, fully weather proof and look just like regular roofing slates. Unlike traditional solar panels, they blend in with standard roof slates to create a virtually invisible solar panel roof. They are ideal for use in conservation areas, on historic buildings, new builds, or renovation projects.

We provide a wide range of services. From design and installation to O&M, RES and its partner companies have already delivered thousands of projects of outstanding quality. RES will help find out for you which technology, or mix of technologies, is right for your building, guaranteeing reliable heat and power through utility-like provision of renewable energy.





PHOTO: PETER MACKINVEN

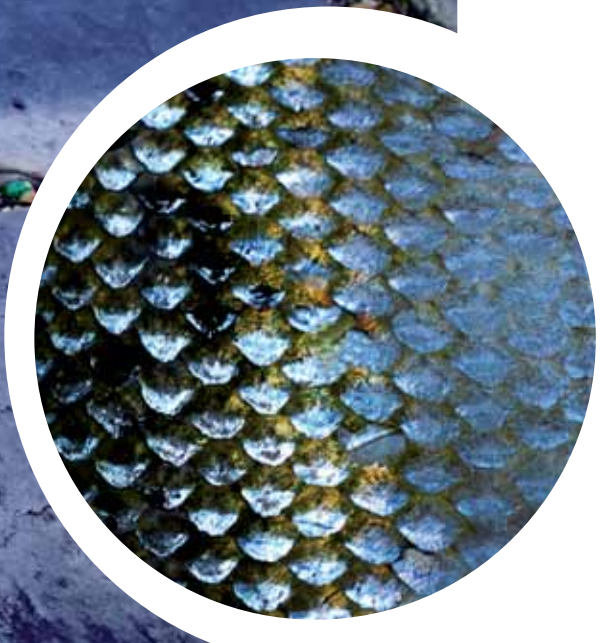
RES's low-carbon head office

SUSTAINABLE built environments

Inbuilt is an independent RES Group company, providing design and consulting excellence associated with the delivery of sustainable built environments. Inbuilt adopts radical new thinking, develops bold new approaches and provides complete integrated solutions to pursue its vital mission: to ensure that sustainability becomes 'inbuilt'.

Drawing inspiration from nature and natural systems, Inbuilt develops low-energy, low-cost ways to heat, cool, ventilate and illuminate our buildings. Technical complexity and cost are 'designed out' and all established practices are subjected to constant rethinking. Inbuilt's design and consultancy services are independent and objective; ensuring that renewable energy technologies are only specified when cost-effective and practical.

Inbuilt works in partnership with clients to deliver spaces, places and buildings which are genuinely sustainable – healthy, safe, productive and inspiring – and fit both for people and the environment.





CASE studies

Our track record of successful project delivery shows that we prioritise quality. As a look at some of our recently completed work will confirm, we have reason to be proud of the results.

WILD HORSE, WASHINGTON, USA



Wild Horse wind energy project in Washington State, USA, represents just one of the many large schemes built by RES in the valuable North American market. The 229MW project near Ellensburg was developed by Horizon Wind Energy and is owned by energy utility Puget Sound Energy (PSE). RES was selected as the Balance of Plant Contractor and it was – at the time – RES’s second project for PSE following the successful completion of Hopkins Ridge near Dayton, a project that has since been expanded.

Installed capacity	228.6 MW
Turbines	127 Vestas V-80 1.8MW
Developer	Horizon
Construction	RES Americas
Owner	Puget Sound Energy
Commissioned	2007

TAURBEG, CORK, REPUBLIC OF IRELAND



Taurbeg wind farm near to the village of Rockchapel in County Cork was developed and built – and is owned – by RES. The construction of the 11 turbine project employed 40 people and was carried out by local company M L Lynch, in line with RES’s policy to use local contractors wherever possible.

Installed capacity	25.3MW
Turbines	11 Siemens 2.3MW
Developer	Wind Farm Developments Ltd (RES and B9 Energy)
Construction	RES
Owner	RES
Homes supplied	Equivalent of 19,400 homes a year
Commissioned	2006

MARSANNE, FRANCE



The Marsanne wind farm is 520m above sea level in the communal forest of Marsanne in the Rhône-Alpes region of France. It was commissioned in 2008 after a development process that involved wide-ranging communication with stakeholders and experts and adaptations to the design, resulting in a project with minimal environmental impact. Its completion brought the total capacity built by EOLE-RES in France to 268MW – giving it the leading position in the French market.

Installed capacity	12MW
Turbines	6 Vestas V80 2MW
Developer	EOLE-RES
Construction	EOLE-RES
Owner	CEPE de Marsanne
Electricity generation around 16,300 people	Equivalent to the annual consumption of
Annual CO ² savings	Approximately 11,900 tonnes

DUNSTON INNOVATION CENTRE, CHESTERFIELD, UK



Energy supplied to Chesterfield's Innovation Centre is virtually carbon-free because all heating and cooling is provided by a ground source energy system using a ground loop array of 32 boreholes. The system was designed and installed in a landscaped garden area by RES's technology partner, EarthEnergy, and the centre is soon to be supplied with electricity derived from renewable energy sources, enhancing its environmental credentials even further.

Ground Loop	Boreholes
Heat Pump	80 ClimateMaster 2.5kW
Distribution System	Ducted Air
Client	Chesterfield Borough Council
Commissioned	October 2002
Installer	EarthEnergy

OFFSHORE WIND, UK



RES is active in the offshore wind market with involvement in three projects in the UK: Lynn (90MW), Inner Dowsing (90MW) and Lincs (250MW), all off the east coast of England near Skegness and owned by Centrica. The RES offshore team has supported the delivery of onshore and offshore works for Lynn and Inner Dowsing and has developed and provided construction and engineering support for the larger Lincs project further out to sea.

Project Summary	Lynn and Inner Dowsing
Installed Capacity	194.4MW
Turbines	54 Siemens 3.6MW
Developer	RES (Inner Dowsing) / AMEC (Lynn)
Construction Contractors	Siemens T&D, Nexans, Subocean, M T Hojgaard, RES (management support)
Owner	Centrica
Commissioning	2008

ALBION SQUARE PV CANOPY, WOKING, UK



In Woking, bus and rail travellers might find themselves sheltering under a glass canopy with a difference. Because as well as providing shelter and some shade, the 9.5metre high canopy – which covers the bus stops and the public square in front of the town's railway station – incorporates photovoltaic cells to generate electricity. The PV panels were designed and installed by RES's technology partner PV Systems, and the project is a great example of a multi-purpose installation for the public sector.

Client	Gleasons Construction for Woking Borough Council
System	272 Triple Glass sandwich solar panels with high efficiency cells
Output	Approximately 73kWp
Connection	Via 15 Fronius IG Inverters
Commissioned	2007

LATYMER SCHOOL, EDMONTON, UK



The large solar system installed at Latymer School in Edmonton, England, supplies domestic hot water for the gymnasium, school kitchen and dining hall. But this highly visible, low-carbon project also provides valuable practical interest to the secondary school's students. The system had to have zero Legionella risk, was installed in a restricted area and integrated into the building management system – all achieved through the design and installation expertise of our technology partner Future Heating.

Client	Latymer School
Contract	Cheshire Contracts
Size	40m ²
Storage	3,200 litre Buffer to Plate Exchanger
Solar Panel	Viessmann Vitosol 100SH
Completion	2005
Installer	Future Heating

TARALGA, NEW SOUTH WALES, AUSTRALIA



The 61 turbine Taralga wind farm has been developed by RES Southern Cross, our joint venture in New South Wales, and was consented in 2007. The project is located on ridges to the east of the village of Taralga, which is over 3km away. The project will provide an economic boost to the Taralga region. Employment of a workforce of up to 40 during the construction period, a new reliable source of income to landowners and the potential for a boost to tourism, will all have positive knock-on benefits to the local economy.

Installed capacity	124-186MW
Turbines	61 at 2-3MW capacity each
Developer	RES Southern Cross
Construction	RES
Owner	RES
Electricity generation	Equivalent to the annual demand of approximately 40,000 homes
Annual CO ² savings	Approximately 250,000 tonnes per year

TRELOWARREN ESTATE, CORNWALL, UK



Trelowarren is one of Cornwall's most historic working estates and its restoration balances conservation, private ownership and living history. The high environmental standards for the redevelopment led to the inclusion of a biomass district heating system running on wood chip fuel from the estate. The 300kW biomass boiler provides sustainable and reliable heating for the estate's 'Eco-timeshares'.

Boiler type	Binder RRK/RRF 200-350
Maximum rated output	300kW
Wood fuel specification	Wood chip
Wood fuel storage volume	60m ³
Commissioned	2006
Installer	Wood Energy Limited

HORNBERGET, VÄSTERBOTTEN, SWEDEN



350km from the Arctic Circle in Sweden is the Hornberget wind farm, RES's first construction project in Scandinavia and our most northerly. The 2MW turbines were delivered and erected in the winter of 2006 and began operating in spring 2007. The project benefited from the strong support of the local community and the positive relationship RES enjoyed with the owner, Swedish utility Jämtkraft, and all companies involved in the construction and development.

Installed capacity	10MW
Turbines	5 Vestas V90 2MW
Developer	RES Skandinavien AB
BOP Construction	RES Construction Sweden AB
Owner	Jämtkraft AB
Homes supplied	Equivalent of around 6,000 homes per annum
Commissioned	2007



WHEN
will you be in touch?



With each day that passes, global warming and fuel availability issues become ever more important. So the sooner we all address them, the sooner we can enjoy the cost savings and environmental benefits – benefits that RES can deliver.

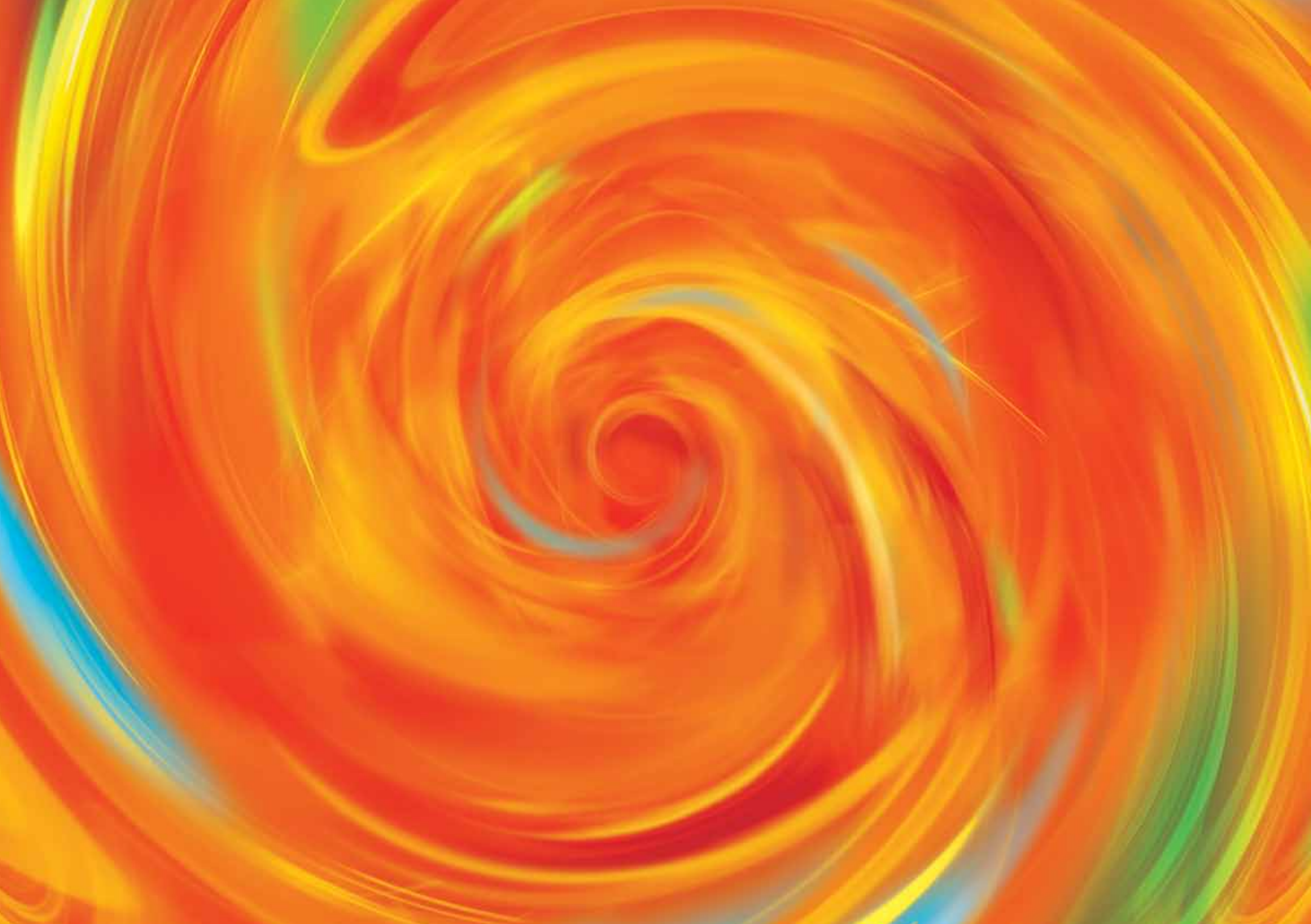
With headquarters in the UK and subsidiary offices on four continents, the RES Group is an international success story in the renewable energy sector. We're ready whenever and wherever you are.

TO FIND OUT MORE:

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