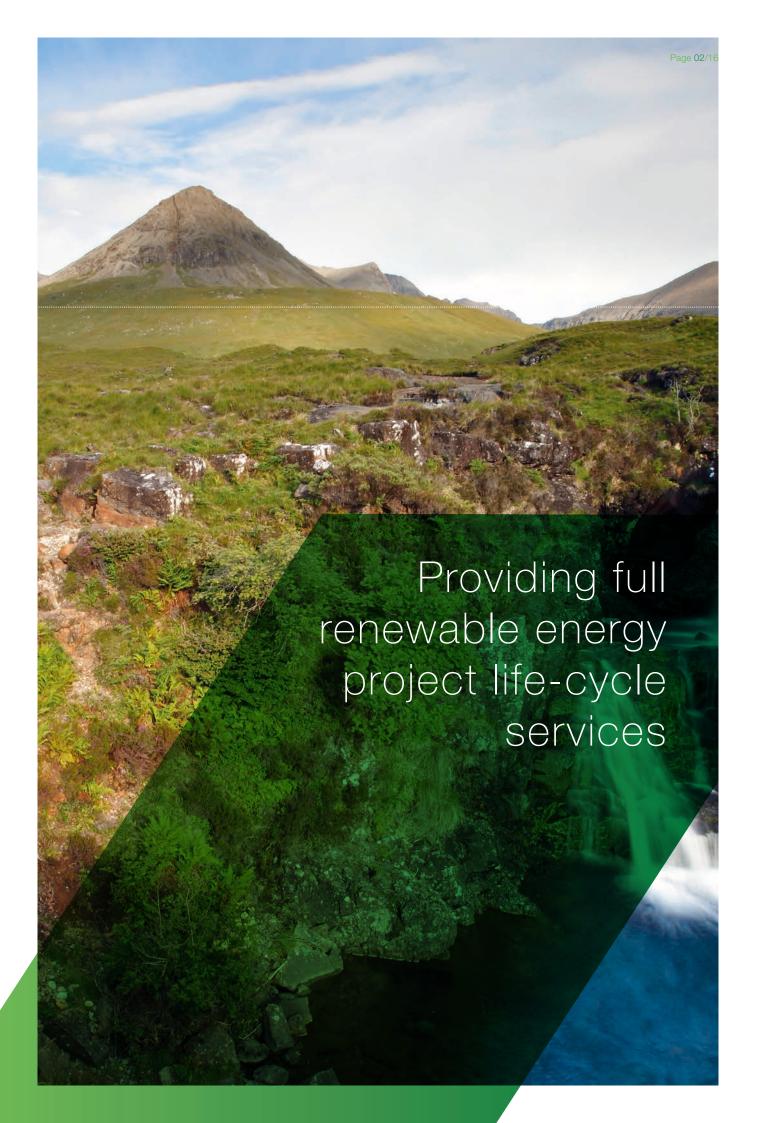




# Clean Energy





### Local knowledge; global expertise

We're proud of our reputation for technical excellence.

Over the past 14 years, our clean energy business has become a globally respected, multi-disciplinary team of experts with a reputation for engineering and technical excellence, professionalism, integrity and responsiveness.

Operating from our network of offices around the world, we have over 300 engineers and consultants with extensive international experience and an impressive track record - having consulted on more than 160GW of renewable energy projects in over 90 countries, spread across six continents.\*

One of the key milestones in developing our clean energy business was the joining of renewable energy consultancy SgurrEnergy into Wood Group in 2010, a strength that is underpinned by the broader Wood Group capability across the global energy and industrial sectors.

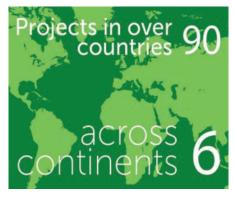
We provide advice on renewable energy projects from small off-grid power systems, specially designed for remote locations, right up to some of the world's largest renewable energy developments, with capacities of thousands of MW, across all terrains and environments - from the Galapagos Islands

We are a trusted partner for renewable energy developers, lenders, investors and operators worldwide. Our dedication to working in partnership with our clients and our expertise in delivering expert engineering and technical advisory services, combined with innovative product developments, has positioned us as one of the leading engineering consultancies in the industry today.

We provide full renewable energy project life-cycle services, including due diligence and project management onshore and offshore wind; solar; wave and tidal; bioenergy; hydro; large-scale microgeneration; hydrogen; and hybrid renewable developments. We support you with end-to-end consultancy services, helping you to reduce risk, plan, design, and operate your renewable project profitably and with confidence.







to Mongolia.

...a trusted partner for renewable energy developers, investors and operators worldwide





# 35

### Our people

#### We've got the expertise.

Our people are our greatest asset. Highly qualified, with a wealth of industry knowledge and experience, they are hands-on experts providing a world class service from our network of global offices.

Our talented team of over 300 engineers and consultants have the technical expertise, commercial acumen and regulatory knowledge to assist you during any stage of the project life-cycle - whether you're planning, constructing, operating or investing in renewables.

Our services are provided by our multi-disciplinary engineering and consultancy teams including:

- Environmental Impact Assessment (EIA) specialists
- · Noise and vibration consultants and engineers
- Met mast installation and decommissioning experts
- · Lidar deployment, data analysis and servicing technicians
- Resource analysts (wind, solar, wave and tidal)
- Geographic Information System (GIS) specialists
- · Computational Fluid Dynamics (CFD) modelers and analysts
- Oceanographers
- Electrical engineers
- Civil engineers
- Mechanical engineers
- Project managers
- Health and safety consultants
- · Operation and maintenance consultants, technicians and engineers
- Economists and diligence specialists.

### Full project life-cycle services

#### We have the solutions.

We provide impartial engineering and consultancy services around the world. With experience in onshore and offshore wind, solar, wave and tidal, hydro, large-scale microgeneration and hybrid developments, our team are expertly placed to support your project.

Our expert engineers and consultants provide project feasibility; project design and development; construction management; operation and maintenance; health and safety; and optimisation consultancy across the project life-cycle.

Successful project delivery is at the heart of all we do and our in-depth technical and engineering expertise, coupled with commercial acumen and regulatory knowledge, ensures our services are tailored to your needs - offering practical, informed advice at any stage of your project.



### **Feasibility services**

Our renewable energy feasibility studies are a crucial first step in obtaining the technical and financial information required to assess your project's viability, minimise risk and enable you to make informed decisions in the most cost efficient way.

We provide a fully transparent service with feasibility studies tailored to your needs and the size and scope of your renewable project. As your project develops, from site selection to planning applications, we offer the following feasibility services:

- Site selection: proposed site identification, selection and screening studies
- · Outline feasibility studies including:
- Initial assessment of site energy resource
- Investigation of key technical, environmental and planning constraints
- Construction of geographic information system (GIS) based constraint maps
- Identification of candidate technology (wind turbines, PV modules etc.) and initial layout design
- Initial financial modeling
- Recommendations for progressing projects and requirements for more detailed feasibility work.

- · Detailed feasibility studies:
- Site visits
- Detailed assessment of site energy resource
- Detailed assessment of technical, environmental and planning constraints
- Consultation with potential stakeholders and planning authorities
- Project design and layout optimisation
- Detailed financial modeling.
- Planning and environmental support:
- Screening and scoping process
- In-house capability and strategic partnerships for all elements of the EIA process
- Management of EIA process
- Preparation and submission of planning documentation.

#### Design and development services

Our accurate, expert project design and development services take into account a range of issues including environmental and social aspects such as local planning policies, environmental impact and also technical, engineering and economic considerations, land availability, grid connection and ease of access, to minimise your risk of underperformance and technology failure. Throughout service delivery we work to maximise the economic performance of your project.

Our highly qualified and experienced engineers, analysts and consultants will ensure your project is designed to optimise the energy resource of your site at each and every stage of design and development via:

- Measurement and data acquisition
- 10-90m meteorological mast installation service and full operational envelope measurements using Galion Lidar (see page 12 for further information on Galion Lidar).
- Water flow and head measurement
- Total wind regime assessment using Galion Lidar.

- Resource assessment and energy yield prediction
- Wave and tidal resource assessment
- Biomass fuel supply evaluation
- Solar resource evaluation.
- Project sizing and design optimisation, for example:
- Wind farm layout design
- Islanded hybrid system optimisation
- Industrial biomass system design
- Redevelopment of decommissioned hydro plants
- Computational Fluid Dynamics (CFD) modeling, combined with Galion Lidar measurements for accurate modeling of complex wind farm sites
- Technology assessment
- Robust pre-contract documentation, specifications and negotiations
- Financial modeling including capital costs, power purchase agreement (PPA) and operational expenditure (OPEX)
- Planning application advice, guidance and completion
- Cost effective EIA
- Grid connection optimisation.



SgurrTrend, developed by our wind experts, is our powerful in-house performance enhancing software tool designed to make the analysis of SCADA data effortless. Using SgurrTrend allows our analysts to concentrate on improving your revenue and decreasing down-time by enabling:

- Rapid identification of lost power and assignment to a particular cause
- Intelligent inspection and maintenance scheduling
- Best performance from each individual turbine to be achieved
- Power performance investigation inline with warranted and/or operational benchmarks
- Trend analysis over different periods for individual or between multiple turbines
- Provision of a complete picture of performance.

#### **Construction management services**

We take complete end-to-end ownership of the construction management of your project, working in partnership with you, on time and on budget. Alternatively we can provide specific technical services to support your project management team.

Communication is fundamental to our approach and our services begin during the project design phase and extend to schedule and budget evaluations (including accuracy checks of cost estimates). Formation of bid packages and organisation and monitoring of daily construction activities are just some of the services we provide.

Our services are tailored to your project based on size and complexity, and backed by our ongoing commitment to total quality management.

Construction management services include:

- Project management, owner's engineer and independent engineer services
- Contract review and enforcement of conditions
- Review of contractors' design and documentation
- On-site construction monitoring
- Quality assurance inspections
- Witnessing of key tests (on and off site)
- Technical advice in the following areas:
- Civil and structural engineering
- Mechanical engineering
- Electrical and control engineering.
- Built to specifications comparisons
- Health, safety and environmental services
- Expert witness services.



### Operations and maintenance (O&M)

As a stand-alone service, or part of a suite of services supporting project delivery and operation, our O&M services are designed to optimise operational performance and increase the revenue generation of your project while reducing operational costs.

Our experienced specialists work closely with you, helping to operate your renewable energy projects safely, more efficiently and cost effectively - maximising the energy yield of your project and minimising lost revenue through downtime.

We understand that reliability, energy capture and safety are key, and our O&M consultancy services, delivered by experts in their field, can identify and address underlying causes of lost production and develop robust O&M strategies.

- 24/7 performance monitoring via SgurrSCADA
- Post investment appraisal of projects
- Asset management, performance optimisation utilising SgurrTrend and Galion Lidar (for further information on Galion Lidar, see page 12)
- Specification preparation and tender assessment
- · Warranty and contract management
- Management of supply chain
- · Scheduled and unscheduled maintenance
- Inservice inspections
- End of warranty inspections
- · Failure prediction and strategy/condition monitoring and analysis
- Incident investigation/root cause failure analysis
- Site health and safety management and consultancy.





## Repowering and decommissioning services

We provide repowering and decommissioning consultancy services including assistance with planning applications and processes, technology assessments and EIAs. Our services are in-line with current legislation and include:

- · Refurbishment and repowering assessment and management
- Noise and vibration assessment and mitigation advice
- Consultancy within policy and legislative frameworks
- Repowering and decommissioning standards in-line with legislation and legal obligations
- Financial due diligence
- Residual liability consultancy
- Preparation of repowering and decommissioning programmes
- Reviews and revisions of repowering and decommissioning programmes.



#### **Due diligence**

We provide impartial, reliable and confidential assessments of renewable projects for banks, private equity institutions and developers across the globe. Our track record is testament to our reputation in the provision of due diligence services.

We understand the risks of investing in a renewable energy project and appreciate your requirements for reliable and bankable data predictions of annual energy yields, accompanied by robust uncertainty assessments and risk mitigation measures.

We provide due diligence services throughout the project life-cycle to help optimise performance and increase return on investment. Our technical and commercial due diligence has played a proactive part in allowing many complex and challenging projects to overcome difficult risks and issues, obtain financing and be delivered safely, on time and budget and to achieve operational targets.

Our due diligence services include:

- Independent technical, financial and commercial due diligence
- Lender's engineer/bank's engineer provisions ongoing through construction
- Mergers and acquisitions
- Initial public offering (IPO)
- Strategic investment advice and guidance
- CAPEX, OPEX and forecast revenue
- · Contracting and procurement strategies
- Technical assessments on renewable technologies and their manufacturers and suppliers, including wind turbines, solar panels and wave and tidal devices
- Expert reports on established and emerging technologies
- Supply chain and supplier analysis.





\*Based on long-term operational performance.



Our training courses are delivered by some of the industry's leading experts, providing you with valuable industry insight and knowledge, improving your market awareness and ultimately, your competitive advantage.



### **Health and safety**

With a dedicated in-house health and safety team and a significant track record in the successful delivery of renewable projects, we are expertly placed to support your development. We provide our clients with health and safety support for the full range of clean energy technologies including onshore and offshore wind, solar, wave, tidal and bioenergy. Our team assists clients in the management of health and safety risks on projects and sites at every stage in the life cycle of a project. We work to ensure that these are managed efficiently to legal standards, giving you confidence in the safe delivery of your project.

We deliver a range of services within the health and safety field, including:

- Health and safety support (full or part time)
- Risk studies based on technology, environment and resources
- Development of a project health and safety risk management process
- Project health and safety reviews
- Conduct and support design reviews
- Vendor assessments
- Health and safety audits and inspections
- Construction phase plan development
- Incident investigations
- Risk assessments
- Planning and mobilisation assessments
   Development and implementation of a
   project health and safety management
   system
- Development and review of risk assessments and Safe Systems of Work (SSOW)
- Risk and lesson learned workshops
- Health and safety training.



### **Training courses**

Our training courses are delivered by some of the industry's leading experts, providing you with valuable industry insight and knowledge, improving your market awareness and ultimately your competitive advantage.

Training is currently available in the following areas across all sectors:

- · Health and safety
- Project feasibility
- · Project design and development
- Construction management
- · Operations and maintenance
- · Repowering and decommissioning
- Due diligence.





### Global experience

#### We've operated in over 90 countries across the globe.

Operating globally from our international offices, our team of over 300 engineers and consultants have extensive international experience and unsurpassed local knowledge.

From the Galapagos Islands to Mongolia, we have provided engineering and consultancy services for renewable energy projects, with capacities of only a few hundred kW, right up to some of the world's largest renewable energy developments with capacities of thousands of MW, across all terrains and environments.

#### **Butendiek offshore** wind farm



**Beinn Ghrideag** 



Yunnan Yukun solar



Client: KfW IPEX-Bank GmbH Location: North Sea (Germany)

Capacity: 288MW

Lenders' technical advisor Service:

We delivered technical advisory services on Butendiek offshore wind farm, situated in the North Sea, 32km west of the island of Sylt.

The company, supported by its strategic partner, Intertek-Metoc, was elected by technical bank, KfW IPEX-Bank GmbH, and project developer, wpd offshore solutions GmbH, to carry out the following:

- Provide an independent technical review of the project design, project agreement, key financial model parameters, environmental and permitting requirements and third party energy yield reports
- Provide an overview of the main project interface, schedule and technical risks associated with the project construction and operation
- Based on the above review, advise on appropriate contingency sizing and other financial model inputs.

Our technical advisory services, along with the work of other advisors, facilitated the successful conclusions of the project's financing process, allowing it to progress into the construction phase. We are now providing technical advisory services to lenders throughout the duration of the construction phase.

### wind farm

Client: Point & Sandwick Power Location: Isle of Lewis, Scotland Capacity: 9MW

Service: Full owner's engineer (technical advisor) services including

project management

We were appointed by Point & Sandwick Power to provide technical support to take the UK's largest community renewable energy project from planning consent through to financial close. Providing technical services and liaising with the client and the lender's financial and legal advisors, we successfully brought the 9MW wind energy project to financial close.

We provided wind resource analysts, multidisciplined engineers, environmental consultants and financial modellers led by a project management team to provide:

- Technical support to achieve financial close
- Project management including project planning and risk management
- Wind regime and energy yield analysis
- Wind turbine component transportation access evaluation
- Ground investigation contract management
- Grid connection contract management
- Balance of plant contract management
- Wind turbine supply contract management (3 Enercon 3MW wind turbines)
- Wind turbine service warranty contract management
- Financial model and power purchase agreement evaluation
- Monitoring and discharge of planning consents.

After reaching financial close. We were selected as technical advisor for the construction phase and will also provide operational management support once the wind farm is operational.



Client: Yunnan Yukun New

Energy Investment Co. Location: Yunnan and Tianjin, China

Capacity: 42MW Service:

Resource assessment, energy yield, and technical review for

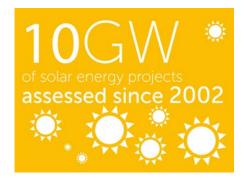
financial model

We provided a review of the energy yield and financial models of three solar plants in construction and preliminary design phases.

A 2MW rooftop site based in Chuxiong, provides electricity directly to 10 school buildings. A ground-mounted project in Dongchuan (20MW), and a larger rooftop project in Ninghe (20MW), area also in the preliminary design stage and are intended to supply the grid once built.

Dongchuan provided particularly interesting technical challenges due to the site location on a mountain slope facing a reservoir. The Ninghe project was a more traditional site, with photovoltaic panels covering several extensive greenhouses.

Our final technical due diligence review covered all three plants and will enable the client to confidently submit financing bids backed by credible data.







## Wind Energy Preparation Program (WEPP)

Client: University of Strathclyde
Location: Malawi
Service: Met mast installation

We completed the installation of two SgurrMetMasts, our wind monitoring meteorological mast product, in Malawi for the Wind Energy Preparation Programme (WEPP), part of the larger Malawi Renewable Energy Acceleration Programme (MREAP).

Our scope of work involved installing and commissioning two 70m masts, including all instrumentation, data logging, communication and power systems, using local plant and haulage companies in Malawi. A satellite communication system feeds the data back to SgurrDataPortal where, following detailed analysis, two energy yield reports were delivered to the Scottish and Malawian governments, the first of their type in Malawi.

The overall project scope is extensive and includes wind resource mapping, site selection, met mast supply and installation, as well as data download and analysis. Further stages of the WEPP project include detailed feasibility study work, capacity building and bank-grade energy yield assessments.



## Westermost Rough offshore wind farm

Client: Consortium of lenders
Location: UK

Capacity: 210MW

Service: Lenders' technical advisor

Westermost Rough offshore wind farm is a 210MW project located off the Holderness coast which comprises of 35 Siemens 6MW wind turbines, the largest turbines to be installed commercially in the offshore wind industry.

We were tasked with bringing the project to financial close, providing lenders' technical advisory services to the commercial banks involved.

As lenders' technical advisor, we undertook a detailed technical, contractual and financial review of the project and identified and mitigated the technical issues which could have affected the ability to successfully reach financial close.

Following completion of the technical due diligence process, we are engaged in construction monitoring of the project.



#### Salkhit wind farm

7

Client: Clean Energy LLC
Location: Mongolia
Capacity: 50MW

Service: Technical advisory and project management

We were appointed as technical advisor and project management consultant for Clean Energy LLC's 50MW Salkhit wind farm, the first wind farm to be constructed in Mongolia.

The client's flagship project was supported by us in conducting feasibility studies, completing the selection and tendering process, achieving successful financial close and monitoring of the construction phase. Key personnel were then based on-site in Mongolia to manage the project for the duration of the construction phase.

From our Glasgow office, the team also provided engineering support in the civil, mechanical and electrical domains, under tight time constraints and deadlines.

Our environmental team was involved in reviewing all project documentation and advised the client on necessary action to ensure that the project complied with Equator Principles and EBRD's environmental and social policy. This has included an environmental and social impact assessment for an extension to the wind farm.

We oversaw and coordinated the erection of the project's wind turbine installations and connection to the grid.

With the project now energised, we continues to provide operational services.



#### Kencott Hill solar PV plant



Onshore wind EIA project portfolio



and modelling



**Client:** Location: Capacity: RWE Supply & Training Gmbh Oxfordshire, UK

37MW

Service: Technical due diligence, owner's engineer

We provided technical due diligence, construction monitoring and provisional acceptance verification services to RWE Supply and Trading on their Kencot Hill project. One of the largest solar plants in the UK, Kencot Hill uses 144,000 polycrystalline modules with a peak capacity of 37MW.

Our involvement on the project spanned the pre-construction, construction and acceptance testing phases. The scope of work included:

- · Technical due diligence
- Energy yield assessment
- Review of key technologies
- Review of EPC and O&M contracts
- Grid connection arrangements
- System design verification
- · Construction and quality management
- · Health and safety support services
- · Construction Design Management Co-ordinator services
- Construction monitoring
- Commissioning verification
- Provisional acceptance.

Client: Location: Capacity: Service:

WilloWind Energy Ayrshire/Dumfries & Galloway 125MW

Onshore wind EIA project portfolio (various sites)

We were chosen to manage and undertake the Environmental Impact Assessment (EIA) and provided planning support for a number of onshore wind farm projects located in South Ayrshire and Dumfries & Galloway.

The portfolio contains sites at local, major and national level and we progressed these sites through both the Town & Country Planning and Section 36 routes (Electricity Act 1989). For major and national scale development the company undertook a corresponding level of pre-application consultation with support from nominated PR consultants.

In addition, we managed the specialist subconsultants who undertook the Landscape & Visual Impact Assessment (LVIA), ornithology and ecology assessments. The installation of met masts, collection of wind data and energy yield work together with the application for grid connections was also managed by us.

**Advanced measurement** 

Client: Location: Capacity: Service:

Carbon Trust/ANSYS Scotland and North Wales 213MW and 96MW Galion Lidar measurement

and CFD model validation

This project, part funded by the Carbon Trust, aimed to develop improved and validated computational flow models for wind flow over complex and forested terrain, was initiated through a partnership between us and ANSYS working with RWE Npower Renewables and Scottish Power Renewables.

We deployed cutting edge Galion Lidar technology to measure wind flow in 3D over non-linear, forested sites. This accurate, real time data was supplied to ANSYS to conduct detailed validation of their Computational Fluid Dynamics (CFD) software over forested terrain.

Using advanced lidar measurements to validate nonlinear CFD modelling protocols, the project combines these two powerful tools to significantly expand understanding of wind flow assessment of wind farms in or near forestry.

As a result of the project, findings will assist in the prediction of wind power and turbine loadings for wind farms on complex sites to a greater degree of accuracy, enabling the development of a set of guidelines for turbine planning on forested sites and set the groundwork for future studies to provide more accurate and credible data to satisfy investment criteria.



### Our products

#### We're committed to innovation.

As a result of our experience in the wind industry, we have invested in the development of cutting edge products. Combining our in-depth technical and engineering knowledge, our products offer tangible benefits to your project.

These benefits are achieved through increased visibility of wind resource through data capture and more detailed data analysis leading to reduced risk and increased commercial viability of your project through increased energy yield prediction.

We continually innovate, playing an active role in developing ground-breaking technologies for the benefit of the renewable energy industry. We have a proven track record of providing industry-leading technical and advisory services, working with leading developers, lenders/investors and operators on some of the world's largest and most challenging onshore and offshore wind farm sites.



Galion is an advanced wind lidar that represents a significant development in the visualisation of wind speed and directional data. With models optimised for onshore and offshore wind data acquisition, Galion is used to conduct advanced wind flow profiling across your wind farm site giving greater visualisation over complex terrain.

Offering a unique, all-sky scanning capability and up to 4km range, Galion is transforming the way in which wind data is collected and analysed, giving project developers and investors increased certainty, improved efficiency and reduced risk.





We have utilised its significant expertise within the wind energy industry to provide a portfolio of meteorological (met) masts for wind measurement.

The SgurrMetMast portfolio includes:

- A guyed tubular met mast design with heights of up to 80m
- A guyed lattice tower met mast design with heights of up to 200m
- A permanent free standing lattice tower met mast design with heights of up to 200m.

All met masts are installed with wind monitoring instrumentation to provide bank grade wind data and have multiple mounting options.

These innovatively designed met masts, coupled with our measurement and analysis services, will ensure you have the highest quality, IEC compliant wind data for your site.



## SgurrDataPortal

SgurrDataPortal is a comprehensive online data management tool for wind measurement assets, allowing developers to interactively manage a large portfolio of measurement campaigns from anywhere with an internet connection. Built and operated by our in-house experts, SgurrDataPortal can manage a wide range of data applications from onshore to offshore meteorological mast instrumentation, as well as lidar and sodar devices, securely storing vital campaign information and data all in one place.

This data management tool allows you to access specific asset documentation and reports at the click of a button, whilst being able to assess and sort through a comprehensive event log for each asset either independently or utilising our expert measurement engineers and technical services which provide quality checks and monitoring of your measurement assets. We can support your measurement assets remotely from our office in Glasgow and onsite out in the field with our monitoring and maintenance packages.





ORQA (Offshore Risk Quantification Analysis) is the very latest remote technology data monitoring platform, specifically designed to capture a full picture of offshore conditions including meteorological, environmental, wave, tidal and foundation information.

ORQA utilises our industry-leading Galion Lidar technology for more accurate data capture. This cutting-edge technology is transforming the way we understand wind and gather offshore data. ORQA deployment can significantly reduce costs associated with offshore measurement due to Galion's increased data collection accuracy and larger 'weather window' for deployment.

ORQA offers a versatile, customisable solution for advanced offshore data collection and risk quantification. You can choose from a complete range of advanced data capture options, including meteorological, hydrographic and environmental and foundation conditions, offering a greater degree of offshore data accuracy than ever seen before





SgurrControl provides control solutions that alleviate structural loads, minimise O&M costs and optimise energy capture of wind and tidal turbines.

The expert team has extensive experience of control system design. Our advanced control solutions are capable of effectively controlling wind and tidal devices, maximising their performance and providing unbeatable levels of flexibility and robustness.

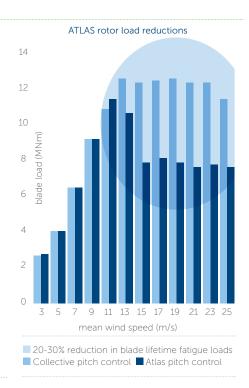
We support our clients through each stage of the control engineering process. From guidance and consulting to the implementation, validation and support of the best control solution, we work with you to identify production improvements, reliability and ROI optimisation.

Key areas of expertise and experience are: turbine simulation and loads analysis; supervisory and dynamic controller design; implementation of control algorithms and turbine controller upgrades and retrofits.

Our advanced control engineering products and services include:

- ATLAS individual blade control to reduce loads to lower costs
- SgurrControlBox wind and tidal turbine simulation and loads analysis
- TurbineAdvance wind turbine controller upgrades / retrofits
- Advanced Wind Farm Control controller to maximise wind farm power output.

In addition, our control engineering services cover power and loading optimisation algorithms, turbine simulation and loads, analysis supervisory and dynamic controllers and Hardware-In-the-Loop (HIL) tool for testing control systems.





SgurrOptimiser is a package of services available to wind farm owners, operators, developers and investors, designed to increase production at existing onshore or offshore wind farms. These services can be adopted individually or all together, depending on the needs of your project.

SgurrOptimiser can be tailored for individual sites or portfolios to optimise production using:

- 1. Forestry restructuring
- 2. Static yaw error correction
- 3. Dynamic yaw control enhancement
- 4. Aerodynamic improvements
- 5. Turbine control enhancement
- 6. Active wind farm control
- 7. Adaptive noise control.

Taken in combination, wind farm production benefits from these optimisation services will range from around 5% to 12% for most sites, and up to 20% enhancement where forestry restructuring is included.

Using our significant knowledge and on the basis of our reputation for robust, accurate advice, our team is well placed to support optimised performance on your wind farm projects.



### Our clients

#### We come recommended.

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The team has been more than a technical advisor and contractor throughout this project – the team has been a constant ally and firm supporter, straining every sinew to get the project to financial close and then to operation. They have gone the extra mile and the project would not be where it is now without them.

#### Calum MacDonald

Director Point & Sandwick Trust

Helping remote communities in Malawi to access energy is important for the future of the country... The project builds on the special relationship between Scotland and Malawi, making a real difference to people's lives... We are proud to support company's work in Malawi.

#### **Humza Yousaf**

Minister for Europe & International Development Scottish Government

The team has been working closely with Société Générale, as technical bank, and the lenders to successfully complete the technical due diligence of this project which involves the first application of the new Siemens 6MW turbines in a project financed transaction. We thank all members of the team for contributing to the success of this project.

#### **Allan Baker**

Corporate & Investment Banking Managing Director Société Générale

We are delighted that both Tod Hill and Harthill wind farms are now operational and the advice and support the team has given us has proved to be invaluable.

#### **Gregor Bryce**

Project Manager Capital Dynamics



We have enjoyed working closely with the team, who has been involved in the project as early as 2009, where they helped progress the development to financial close. More recently, Their construction and monitoring services have been very important in supporting the Borkum West project through the construction phase and we will continue to work closely with them while bringing the wind farm into operation.

#### **Manuel Eck**

Managing Director TWB

There is a large capacity for offshore wind power in the Gulf of Mexico area and we wanted to deploy a comprehensive measurement device to ensure that we're properly informed on the wind resource, which is why we selected Galion Lidar.

### Heather Otten Chief Development Officer

Baryonyx Corporation

We have been delighted to work with a technical advisor of this calibre. The team has brought a depth of PV knowledge and expertise to our project, which was highly appreciable.

#### **Pierre Gerbeaud**

Marguerite Fund

At present the Galion Lidar is the only windscanning device in the industry that fits the measurement requirements for the Baltic-I research project. We already conducted research last year to verify and validate Galion Lidar against met mast readings and the device showed very satisfactory measurements and very good hardware availability. The capability to visualise the Galion's data of the turbines' wakes within the entire Baltic-1 wind farm is outstanding.

#### Jan Anger

Wind Energy Department University of Stuttgart

Completing this landmark project is going to change the face of the electricity sector in Mongolia. We are breaking the ground for a pipeline of future privately funded wind farm and power plant projects in Mongolia, and the team has helped us to lead the way.

#### **Neil Detert**

Project Manager Clean Energy LLC

### Contact us

#### We'd like to hear from you.

To benefit from our impartial and independent services or to find out more about our experience and what we have to offer visit www.woodgroup.com.

### Accredited

#### We're committed to HSSEQ.

When it comes to our shared Core Values at Wood Group, Safety & Assurance is our top priority because lives depend on it. We passionately care about the safety of our people and behave as safety leaders. We are committed to preventing injuries and ill health to our people and those we work with so everyone returns home safely. We provide our people with the training, knowledge and tools to work safely and prevent accidents. We are focused on assuring the safety of everything we design, construct, operate and maintain.

We are committed to enhancing standards through continuous quality improvement practices and have a dedication to the provision of technical excellence.

We hold triple certification in British quality standards and are committed to delivering the very highest standards of Quality, Environmental and Health & Safety Assurance. This commitment is demonstrated by our continued certification to OHSAS 18001 (Health & Safety Management), ISO 9001 (Quality Management) and ISO 14001 (Environmental Management) standards.

Our technical skill set has also been accredited to UKAS ISO/IEC 17025:2005 standard. This prestigious achievement reflects our ability to perform power curve analysis on wind turbines to standard, IEC 61400-12-1 (Laboratory Testing), making us one of the few renewable consultancies in the UK to achieve this accreditation further emphasising our commitment to enhancing standards through continuous quality improvement practices and underlines our dedication to the provision of technical excellence.

### Clean energy offices



### Our experience delivers

Access our global network of experts at www.woodgroup.com/contact

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