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## RES Appointed as UK Partner for DEIF Wind Power

Following training at their facilities in Denmark, Realise Energy Services have been appointed as the UK partner of DEIF Wind Power. With an impressive background in turbine control system design and manufacture, DEIF offer a comprehensive range of wind turbine retrofit control solutions including wind farm & pitch control technology and turbine control strategies.

Based on decades of knowhow, DEIF Wind Power Technology creates innovative green solutions based on leading technology and hardware components that always deliver to their brand promise: Power Efficiency.

Realise Energy Services trained technicians are now able to assess your turbine and design, model and install a DEIF solution tailored specifically to your turbine to optimise production with increased functionality and reduced wear and tear ensuring improved turbine performance and availability.



## Noise Sensors for Blade Inspection

Proactive maintenance is becoming a major factor in the achievement of high turbine availability figures. High turbine availability is key for high turbine performance figures. 'Nipping it in the bud' or stopping an issue before it causes significant downtime is a key part of any annual maintenance regime. Costly blade repairs are a key example. Once a blade problem is identified, turbine stoppage is usually immediate and until the blade is made safe and repaired, the turbine should not be operated. This leads to significant down time and loss of production.

Realise has recently been testing a new blade sensor which is left at the turbine for a short period of time while an acoustic signature of the turbine's blades is recorded. This signature is compared to a 'healthy' blade and when repeated at regular service intervals a long-term picture of the blade's health can be built up. Any change to this signature can be investigated and repaired before serious damage occurs. Even minute cracks and chips to the gel coat can be identified and repaired before they become bigger problems.



### Our Partner- OnGen

'At OnGen we believe any organisation serious about reducing its energy costs should assess the potential of generating energy at the very place it is consumed. Volatile energy prices, tight supply margins, grid constraints and environmental legislation mean that there has never been a more appropriate time to consider onsite renewable energy generation for you or your clients. Our mission is to reduce an organisation's total cost of energy consumption, provide greater security of supply and help reduce their carbon footprint.'

[ongen.co.uk](http://ongen.co.uk)

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## On Farm Battery Storage Solutions

Could energy storage technology prove a viable investment for your rural business?

Energy storage technology is developing rapidly and costs are falling. Energy storage solutions now offer farmers and rural businesses the ability to protect their operations from fluctuating energy costs. For many businesses, energy bills are a significant expense and taking steps to better manage your energy use, as well as reducing carbon emissions, can directly impact your financial outlay, competitiveness, reputation and green credentials.

Battery storage systems mainly use lithium-ion and work by capturing and storing energy generated from renewable technologies, including solar, wind, CHP and biomass. They can also work independently of a renewable energy source, by storing cheaper energy from the grid, which can then be released when it is needed or when energy costs are high. In some cases batteries can support the National Grid and additional revenue can be generated.

Energy storage technology equipment ranges in size from small domestic units the size of a kitchen cupboard, to multiple stacked units that fit in a barn or garage, and up to large shipping containers that can be offloaded straight into a farm yard.

However, it is not always straight-forward to assess whether energy storage will work for your business either from a technical or financial point of view. Therefore, Realise Energy Services have teamed up with OnGen, an Edinburgh based company that specialises in onsite assessment of renewables and storage of energy.

Together, Realise OnGen will look at your current energy usage, both generation and consumption, and then design an energy strategy that will indicate overall financial viability and system sizing. Once agreed, the system will then be supplied and installed by Realise OnGen with its own inhouse specialist energy engineers.

Realise OnGen will be on Stand 18 in the Renewables Area at the Royal Highland Show where visitors are welcome to come along and start to use Realise OnGen's storage assessment tool as well as viewing various battery storage equipment from different manufacturers.

## RES becomes part of the Randolph Renewables Group of Companies

In recognition of the need to invest in new resources (engineers, tools and spares) and to be able to provide a robust offering to customers, Realise Energy Services has become part of the Randolph Renewables Group of Companies. This move gives Realise strong financial backing and payment guarantees for its customers.

Other companies in the Group support different areas of the renewables sector, from power purchase agreements to asset management and project development. This pool of talent gives Realise access to a diverse range of skills and experience, as well as increasing its 'family' of supported turbines through the Group's own generating assets.

### Grid Code Compliance

Generators above 200kW in Northern Ireland will soon be required to adhere to a number of new requirements from NIE to meet grid code obligations. These include:

- G59 Setting alterations;
- Installation of grid SCADA monitoring equipment; and if necessary
- Installation of reactive power compensation equipment.

It is our understanding that similar requirements will be rolled out UK wide over the next few years. If you are interested in advice or any more information regarding grid code compliance please do not hesitate to get in touch.

### Employee Spotlight

With the ever-increasing demand for our services in Northern Ireland we have invested in a dedicated team available 24/7 based out of our offices in Magherafelt. Both Declan and David are industry experienced technicians with over 10 years of experience between them. They are able to deal with any issues that come their way with both professionalism & efficiency to ensure that your turbines are maintained in top condition.



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### Additional Services

- All Inclusive Service Contracts with availability guarantees
- Turbine inspections and reporting (Operation and Health and Safety Reporting)
- DEIF and SCADA system upgrades
- Latchway certified engineers and climb assist hoist upgrades
- Blade inspection, repair & pitching optimisation
- Tower and nacelle painting
- Site maintenance
- Transformer inspection and servicing plus oil analysis
- Re-powering and potential site purchase
- Research & Development

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## Turbine optimisation offers improved performance and returns

Realise Energy Services offer a turbine optimisation service as part of our service and maintenance options to ensure that your turbine is set up correctly for your site and to maximise performance and availability.

Unique site conditions can have a significant effect on turbine performance, whether it's the effect of nearby buildings or woodlands reducing wind resource or local topography causing turbulence.

Wind turbines have a range of sensors which need to be set correctly to suit both site conditions and turbine operational requirements. Similarly, blades need to be set to the correct angle of pitch to suit either low or high wind sites or those where turbulence is an issue. Incorrectly set blades can have a particular impact on production – especially in stall-regulated turbines – as well as increasing wear and tear on the turbine.

Contact Realise Energy Services to arrange a wind turbine inspection and review or to discuss turbine optimisation solutions in more detail.



*If you need an experienced and reliable turbine support service and your current service and maintenance contract is due to expire over the next few months, please do contact us to get a free, no obligation quotation.*