



Wind turbine planning appraisal.

We use a traffic Light system for evaluating planning applications.

Green – strait forward application with limited planning issues

Amber – site already has a working turbine on site no major issues expected.

Red - Challenging application Green Belt nearby issues

Breakdown of costs and services to
Plan, Design, install and maintain your new Turbine.



Why you should choose us.

- Universal Have been in the Turbine industry for nearly 20 years.
- We offer a turn-key operation for the supply, installation, and maintenance of your project.
- We were the first company in the UK to achieve MCS accreditation for small wind turbines.
- We have experience of over 100 successful planning applications,
- We have 120 working turbines installed in the UK.

We Offer

1. Transfer of your existing FITs to your new Turbine
2. A Detailed Turbine\ Battery\Dno. site appraisal.
3. Finance options from a qualified financial advisor
4. Detailed costing and returns.
5. Expert planning application
6. Visual Impact assessment.
7. Professional DNO application
8. Site preparation and foundations
9. Installation of turbine
10. warranty on turbine
11. Ongoing Service and maintenance contracts.
12. Aggregated power supply agreement with option to increase your export price using Dynamic Pricing.

Pre- Planning Costs

1 -A Detailed Turbine and Finance- site appraisal including estimated costing and returns	£1,000.00
2 -A full pre-planning application proposal	£ 500,00
3 – Budget DNO application including Site Visit	£ 500.00

Above price excludes VAT and any site plans and Fees

Depending on reports (each site has different requirements) A total budget of between £5,000 to £25,000 should be factored in. (An accurate figure will be provided at the end of the Pre Planning Process..

Project Timeline - 3 to 6 Months

1. We will initially conduct full site survey, including finance options.
2. DNO Budget application – **4 weeks**
3. pre -application consultation with your local planning office. **-6 Weeks**
4. With the above reports we will build and apply for a comprehensive Planning \ DNO application including arranging any reports required by the council and an in-depth. Visual Impact assessment.
5. An accurate cost for the planning/DNO application is generated.
6. A fully costed quotation for the project is generated.
7. Planning application lodged and surveys carried out.
8. Planning granted and a DNO connection agreement obtained
9. Groundworks, DNO, Assembly and commissioning (If you assist in Groundworks, Cabling Etc a reduction in project costs will occur)
10. Aggregated power supply agreement. Feed In Tariff Transfer)
11. Price for Turbine confirmed (original price will be in Euros).
12. Ground works Commenced
13. Turbine Delivered on Site.
14. Turbine Commissioned.

PLANNING

We work closely with a leading planning consultancy. Together we have an in-depth knowledge of the challenges a successful planning application and installation of your Turbine requires.

Due to the energy crisis of the last 2 years councils and Government are now looking more positively on On-shore Wind Turbine applications.

NATIONAL PLANNING STRATEGY

The National Planning Policy Framework (NPPF) outlines the key considerations that Council's must apply to the determination of an application for renewable energy. Paragraph 158 of the NPPF states that in determining planning applications, local planning authorities should expect new development to:

a) **not** require applicants to demonstrate the overall need for renewable or low carbon energy, and recognise that even small-scale projects provide a valuable contribution to cutting greenhouse gas emissions; and b) approve the application if its impacts are (or can be made) acceptable⁵⁴. Once suitable areas for renewable and low carbon energy have been identified in plans (**most councils have not carried this out**), local planning authorities should expect subsequent applications for commercial scale projects outside these areas to demonstrate that the proposed location meets the criteria used in identifying suitable areas. Specifically, Footnote 54 of the emerging NPPF consultation document states that, “**Except for applications for the repowering of existing wind turbines**, a proposed wind energy development involving one or more turbines should not be considered acceptable unless it is in an area identified as suitable for wind energy development in the development plan, or supplementary planning document identified an area as suitable for wind energy development (where the development plan includes policy on supporting renewable energy); and, following consultation, it can be demonstrated that the planning impacts identified by the affected local community have been satisfactorily addressed and the proposal has community support.”

We use **REPOWERING** to maximise the chance of a successful planning application.

If you do not have turbine, we would still use **REPOWERING** as our main argument for you to reduce your existing carbon footprint.

Landscape & Visual Impact Assessment (LVIA)

Working with our partner Our Expertly Done approach has applied a wide range of best practice landscape and visual impact assessment (LVIA) techniques for diverse projects throughout the UK. Our experienced landscape architects appraise landscapes to establish the capacity to absorb a given development and assess the effects of landscape character. We regularly provide landscape expert witness services at Public Inquiries. We can provide Landscape and Townscape Visual Impact Assessments, Landscape capacity studies and Landscape Character Assessments.

DNO

Using our contacts and expertise in grid connection we will apply for the correct connection for the project ensuring a future proof -cost-effective solution to your project.

FEED IN TARIFF

We will assist in transferring the Balance of your FITs to your New turbine.

EXPORT TO THE GRID

When you are exporting large quantities of power to the grid you move out of the **Small Export Guarantee (SEG)** scheme onto the

Aggregation Power Suppliers market where prices this year have been between 12 p and 17p per Kwh. We are happy to assist in organising tariffs.

An example of a Aggregation contract is.

Start Date	End Date	Contract term	Summer Peak (£/MWh)	Summer Off-peak (£/MWh)	Winter Peak (£/MWh)	Winter Off-peak (£/MWh)	Equivalent Single Unit Rate (£/MWh)
01/01/2024	31/12/2024	12m	£93.62	£81.83	£136.87	£78.03	£96.67
01/01/2024	31/03/2025	15m	£93.62	£81.83	£139.98	£81.59	£100.42
REGOs (£/MWh)		DUoS.	TRIAD - £/MWh		All in - £/MWh		
£10.00		£4.65	£0.30		£111.62		
£10.00		£4.61	£0.30		£115.33		

DYNAMIC EXPORT PRICING

One thing that will decide the size of Battery (if required) backup is how adjustable pricing (different prices for export at different times of day) at peak times changes.

BATTERY SYSTEMS.

From our feasibility study we will incorporate a cost-effective battery backup to your project.

GROUNDWORKS

Once planning has been granted, we will prepare the site Foundations, cables, and buildings to ensure a smooth installation.

INSTALLATION OF TURBINE

Working with a leading European Turbine Group, We Refurbish and install our turbine to your specification.

WARRANTY

We offer a 1-year insurance backed guarantee as part of the project.

SERVICING

A complete servicing support is available.

EXPORT

An Aggregated power supply/ FIT agreement will be put in place by us in place

POTENTIAL OUTPUT For A BESTWATT BW10 Kw TURBINE

Estimated wind speed	Estimated Hourly Output-	Estimated Turbine Output
6.0 M/s	3.5 kwh.	28,000Kwh.
7.5 M/s	4.0 Kwh	35,000 Kwh

POTENTIAL OUTPUT For A BESTWATT 45 TURBINE

Estimated wind speed	Estimated Hourly Output-	Estimated Turbine Output
6.0 M/s	10 Kwh.	89,000 Kwh.
7.5 M/s	14 Kwh	118,000 Kwh

POTENTIAL OUTPUT For A BESTWATT 80 Kw TURBINE

Estimated wind speed	Estimated Hourly Output-	Estimated Turbine Output
6.0 M/s	18 Kwh.	154,00 Kwh.
7.5 M/s	29 Kwh	250,000 Kwh

POTENTIAL OUTPUT For A VESTAS V27 Kw TURBINE

Estimated wind speed	Estimated Hourly Output-	Estimated Turbine Output
6.0 M/s	48 Kwh.	411,000Kwh.
7.5 M/s	72 Kwh	635.000 Kwh

POTENTIAL OUTPUT For A VESTAS V52 850 Kw TURBINE

Estimated wind speed	Estimated Hourly Output-	Estimated Turbine Output
6.0 M/s	140 Kwh.	1,500,000Kwh.
7.5 M/s	285 Kwh	2,500.000 Kwh

Farm Usage

Feed in Tariff*	Yearly Grid usage**	Total Farm Usage

*61,000 litres x 11 Kwh per litre @30% efficiency.

** 53,000Kwh @31.5p per Kwh

TURBINE PRODUCTION (ESTIMATED)	FIT PAYMENT 47.5p	Export* 000,00 @5p	Yearly Utility Saving@ 00p	Yearly income/savings
000,000	£000,00	£000,00		

If all power exported to grid @ 5p per Kwh	£10,000 PA.
Nett cost of Energy produce*	0p per Kwh

* 10 years production =15,000,000 kWh INSTALLATION COST £1,000,000

An Article from The Scottish Farmer



11th September 2022

New Ofgem guidance opens door to wind turbine 're-powering'

Rule change allows turbine replacement without loss of Feed-in Tariff

OFGEM has clarified that farmers changing their turbines may stay within the rules of the Feed-in Tariff

Almost a decade has passed from the heyday of the Feed-in Tariff, when hundreds of small to medium scale wind turbines sprouted from the Scottish agricultural landscape.

With a proposed design life of 20 years, most of the owners of that generation of turbines may have consigned any decision around trading in their current model for a newer 'upgrade' to the early 2030s – not least because the FiT rules tied the payment exclusively to the installed machine.

But with the UK – and indeed the world – facing seismic shifts in the energy landscape, there is a desperate need for more affordable, home-grown, clean energy. Ofgem has recognised this and issued a clarification around the replacement of generating equipment to owners of FiT generation equipment. The outcome? The case for considering early modernisation of farm turbine sites is becoming more competitive.

Many FiT scale turbine models were based on technology developed in the 1980s when the wind industry began to emerge in Denmark and northern Germany. Smaller scale turbines of 100-500kW were the first products to come to market. As such, the designs of many FiT turbines erected in the UK over 2012-2015 were typically based on technology from a previous era. This resulted in limitations both in terms of output capacity and overall performance.

In addition to many turbines being more basic in design, the limited demand for smaller scale machines outside of the UK market meant that the demise of the UK FiT was also catastrophic for most of these smaller turbine manufacturers and their delivery partners. Many have since gone out of business, while others moved up the value chain to focus on larger scale turbine models.

These combined factors mean that many owners have faced a distinctly rocky relationship with their turbines over the last 8 or 9 years. The demise of many suppliers in the UK industry has led to challenges trying to trouble-shoot problems and track down replacement parts. Faults with generators and gear boxes have topped the list of downtime events causing unexpectedly high unscheduled maintenance costs and reduced levels of annual generation.

This issue has, in some cases, been further compounded by insurance underwriters losing confidence in some models and withdrawing their 'loss of income' cover.

But instead of this on-going investment to keep an unreliable turbine operational, there is now a viable and potentially appealing alternative – owners can consider replacing their turbine with a new, modern, more efficient model, a process known as 're-powering'.

Until recently owners have been extremely reluctant to consider this for fear of compromising their FiT accreditation, but changes in Ofgem regulations now provide owners with the confidence to replace their turbines without losing their ability to claim at currently agreed levels. Indeed, the regulations indicate that the replacement turbine can even have a higher capacity output thereby increasing their generation capacity with a 'pro rata' calculation used to calculate their FiT payment.

Ofgem's revised guidance for turbine owners accredited under the FiT scheme, who are considering swapping generation equipment or full asset replacement, is published publicly here: <https://www.ofgem.gov.uk/publications/feed-tariffs-fit-decision-replacement-generating-equipment>

A key paragraph states: "The act of replacing generating equipment does not, in itself, result in decommissioning and therefore, in the withdrawal of accreditation. This will allow generators to replace and temporarily remove generating equipment and retain an installation's accreditation, subject to the conditions in the other decision areas."

Clause 6.15 states “You may repair or replace all or some generating equipment without affecting the compliance of an accredited installation, provided that the installation continues to meet the scheme rules.”

Ofgem also state that, where there is an increase in capacity of a FiT accredited installation, payments will be prorated accordingly. Simply put, an installation that was originally accredited by Ofgem at 500kW capacity but has subsequently been re-powered based on a turbine with 1MW capacity, should continue to receive FiT payments for 50% of the generation they export. The additional generation can be used on site or sold via a PPA, an attractive option in the current market. Many owners may feel it is premature to consider re-powering, but Ofgem CEO, Andy Lyle, reckoned that early re-powering can make excellent financial sense especially if your current turbine is not performing optimally. Mr Lyle said that owners can gain a significant increase in output from a modern turbine not just from its improved efficiency but also its greater reliability and therefore reduced downtime. They can also benefit from a turbine that is highly bankable and offers a 25-year lifetime, extending a project to the 2040s.

A re-powered site can utilise all or some of the existing infrastructure, such as the crane pad area, access roads and existing substation, thereby reducing the cost and impact associated with its construction. Potentially two 250kW turbines could be replaced with a single modern, 500kW machine. Mr Lyle said: “Recent electricity price rises leave us in no doubt how important it is to maximise our UK production capacity. The combined capacity of all the Feed-in Tariff turbines installed in agricultural settings across Britain could be considerably higher with greater adoption of modern, medium scale wind technology. The decision by Ofgem on replacement of generating equipment gives owners renewed confidence to boost their generation through early re-powering. It will also significantly extend the generating life of these sites providing a greater security of supply into the 2040s.” Inevitably a re-powering process is likely to have planning implications that require a planning variation or, indeed, a new application. Owners considering this option will need to accept this risk. However, should it fail there remains the option of continuing to operate your existing turbine.