Take the decision today for a greener tomorrow

For generations we have been reliant upon energy derived from fossil fuels, to satisfy the insatiable demand for energy by our expanding global economies. The resultant, relentless depletion of our world's resources has had devastating consequences for our natural environment and is widely recognised as the single biggest issue that we face today. Governments across the globe are committed to supporting technologies that provide an alternative for the future and enable both consumers and business to play their part.

The Alternative Energy Company is at the forefront of providing solutions that enable this to happen. Our exclusive range of Wind Turbines, Solar Panels and Inverters are suitable for both domestic and commercial use and enable you to dramatically reduce your carbon footprint.

Clean Energy with Income Potential

Wind Turbines exploit the wind's natural lift force, providing a clean, renewable source of energy that produces no carbon emissions or damaging waste products. Representing a relatively low cost method of electricity generation, they also provide the potential for an income* by selling any surplus energy generated or by selling ROC's* (Renewable Obligations Certificates).

*You will receive Renewable Obligations Certificates (ROC's) for all the electricity that you generate. These can then be sold to electricity companies to enable them to meet their targets for supplying renewable energy. They will also pay you for any surplus energy you are able to supply to the grid.

Tried and Tested Technology

Installed in diverse sites around the globe, wind turbines are operating successfully in even the most extreme of conditions. From the cold of the Arctic circle, to the heat of Saudi Arabia, they provide a reliable means of electricity generation.

Design & Performance

Blades are manufactured using the latest techniques in advanced composite technology to provide low-wind speed start-up, and efficient, quiet operation. Advanced control systems enable the turbines to run in varying wind speeds. In storm conditions, the turbine will furl out of the wind to prevent mechanical and electrical damage. Safe and efficient operation requires the minimum of specialist knowledge. The power connectors and turbine brake are easily accessible at the base of the mast and annual maintenance contracts are available to give you peace of mind.

Low Noise

All Wind Turbines are designed to minimise noise and maintenance requirements. The turbine operates without a gearbox and has a direct drive generator. The load is continually monitored to keep the blades running at a low speed, whilst optimising power output. The low blade tip speed delivers an almost unnoticeable swish of the blade compared to other background noises.

Frequently Asked Questions

Here's a selection of some of the questions that you may have. Please don't hesitate to contact us if you need any further information.

How much space do I need for a turbine?

You will need a land area at least 2.5 times the height of the mast, with a width at least 2 metres wider than the rotor. Guyed towers require more space. You will also need to take into consideration space for lorry access and for servicing which will usually require space to lower the mast.

How far away from the nearest building should it be sited?

Turbines should be sited at least 20m away from a building. The further away the larger the cable requirements.

Do turbines affect TV, Radio or Telecoms reception?

Turbines do not usually create any interference.

How noisy are the turbines?

Our wind turbines are designed to operate at low speeds so are quiet. They are direct drive, so have no gearbox noise. They make a quiet 'swishing' noise that is unlikely to be heard more than 50m away.

How can I calculate the wind speed at my site?

TAEC™ can help you measure the wind at your site. Alternatively you can install a small anemometer for 6 to 12 months to get an accurate assessment.

What wind speeds are required to make a turbine worth installing?

Provided the site is exposed to prevailing winds (and not obstructed by building or trees etc) a wind speed of 4-5m/s is generally sufficient.

What is the lowest and highest wind speed at which a turbine will generate electricity?

TAEC™ wind turbines start producing electricity at wind speeds of 2.5m/s. The flexible blade system enables the turbine to operate in even the fiercest wind conditions. As the wind speeds increase, the blades cone out of the wind enabling it to operate at an optimum speed and no faster.

How long will it take me to recoup my investment?

This will be determined by a number of factors. Including wind speeds at your site, the price you obtain for any surplus power or sale of ROC's and the availability of grants for your project. We expect a typical project to achieve payback within ten years.

What is the life span of a wind turbine?

You can expect your wind turbine to have a life span of at least 25 years.

What warranty is offered?

All our turbines come with a standard 2-year warranty that can be extended to five years if preferred.

Do you offer a maintenance or service plan?

TAEC™ offer a range of competitively priced service / maintenance contracts. Please contact us for more information.

Other products supplied by TAEC

TAEC™ supply a wide range of alternative energy products. We specialize in the manufacture of modified / pure sine wave power inverters, off-grid / on-grid wind power systems and wind & solar hybrid systems. All our products are affordable, reliable and lightweight.

Solar Panels

Power Inverter 600W

TAECTM 150W Slimline Power Inverter

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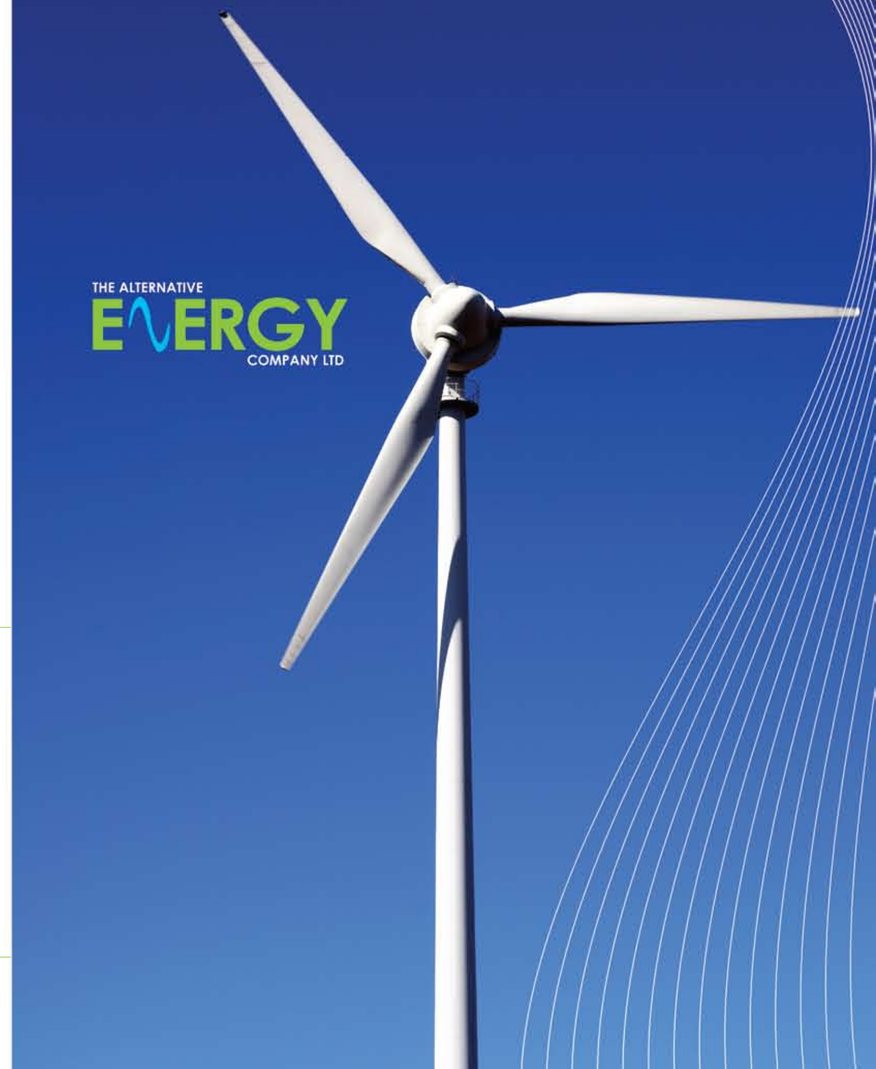
The best alternative for affordable energy

The Alternative Energy Company



Why choose TAEC?

As one of the UK's leading suppliers and installers of Wind Turbines, we provide the complete service from site assessment to system design, supply, installation and maintenance.

The Alternative Energy Company offer

- Full site survey to establish the suitability of your site
- Assessment of wind speed and likely energy generation
- Advice on choice of wind turbine and investment required
- Help with grant availability and planning applications
- Site preparation (where required)
- Installation of Tower & Turbine
- Assistance with connection to the Grid, selling of surplus power and claiming of ROC's
- Energy savings advice
- 2 year warranty parts and labour
- Annual maintenance contracts and ongoing support

Helping you choose the right turbine

Turbines range in size from 300 W off-grid systems to 20 kW on-grid systems. The higher you can mount your turbine, the more you will be able to benefit from available wind speeds. Whilst you will need to secure the appropriate planning permission, we have three tower formats to choose from:

Guyed Cable Tower

Generally smaller and lighter guyed towers guyed towers have 4 tension wires secured half-way up the tower to anchor points in the ground. The wires may not be suitable for some locations frequented by humans or animals.

Free Standing (Tapered) Tower

Incorporating a substantial steel column a free standing tower requires a larger and stronger central foundation. There are no tension wires to interfere at ground level.

Hydraulic Towers

TAEC™ hydraulic towers include a clever folding mechanism that enables the turbine to be lowered to the ground easily and safely for periodic maintenance. The towers are delivered in telescoped format to reduce cost.

Product Overview	TAEC™ 2KW	TAEC™ 3KW	TAEC™ 5KW	TAEC™ 10KW	TAEC™ 20KW
Rotor Diameter	3.2m	4.5m	6.4m	8.0m	10.0m
Working wind speed	2 – 18 m/s	2 – 18 m/s	2 – 18 m/s	2 – 18 m/s	2 – 18 m/s
Rated output power	2 kW	3 kW	5 kW	10 kW	20 kW
Working voltage	120V DC	240V DC	240V DC	240V DC	240V DC
Tower height	9m	9m	12m	12m	18m

Renewable Energy that doesn't cost the EARTH

There are two types of connection options with the wind turbine systems available.

Stand-alone (off grid)

The smaller stand-alone (off grid) systems are typically used in remote or independent locations to power lights, small electronic monitoring devices, electric fences, small pumps etc and can contribute to "self-sufficiency" projects, and are sometimes referred to as Micro systems. TAEC™ can also supply solar panels to form a hybrid system and charge the batteries if there is no wind.

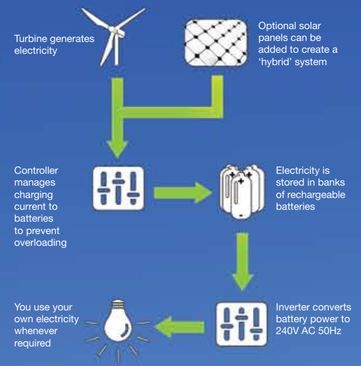
Small grid-connected (on grid)

Directly connected to the National Grid's mains electricity supply, these larger turbines reduce the consumption of electricity from the grid. If sufficiently large they also enable the export of power back to the grid, when power generated exceeds demand at the site, providing the prospect of revenue from the utility companies.

Funding & Planning Applications

Under current UK law, all wind turbines (with the possible exception of small machines on agricultural buildings) require planning permission. The growing pressure to support alternative energy sources means that most planning authorities are generally receptive to planning applications. In addition, there are a number of grants that are available to off set the overall costs of the project. Contact us to find out more.

Typical off-grid installation



Typical grid-connected installation