

Harnessing the Power of the Wind

If there's one thing we're certainly not short of in Shetland, it's wind! As the blades in a wind turbine rotate they drive a generator to produce electricity. Wind is plentiful and free so once you've paid for the initial installation your energy bills will be reduced.

There are two main types of domestic wind turbines: Mast mounted (free standing and erected in a suitably exposed position) and roof mounted (mounted on the roof of your home or office). Any exposed area, free from large obstacles, such as hills and other buildings, is suitable for a wind turbine.

To be really effective turbines also need to be sited in areas with an average windspeed of 6 metres per second or above. Lerwick has an average windspeed of 6.6 m/s at 10m above ground level and most other areas in the islands have higher windspeeds. You can find the specific windspeed for your postcode here www.berr.gov.uk/energy/sources/renewables/explained/wind/windspeed-database/page27326.html.

Once you've found a site for your turbine (remember to seek planning permission) you need to decide whether to connect it to the grid or store the electricity generated in batteries. Most small-scale, domestic turbines won't generate all the electricity you require so you will probably need to remain connected to the National Grid. Any excess electricity you do generate, such as at night times, can be stored in batteries (for times when energy consumption is greater than generation) or sold back to a supply company (if connected to the grid). Information on how to sell your electricity can be found here www.energysavingtrust.org.uk/Generate-your-own-energy/Sell-your-own-energy

Generally speaking a 2.5kW turbine will provide nearly all the electricity used by the average household. As well as dramatically reducing your electricity bills, this size system would reduce your carbon footprint by 2.2 tonnes every year. Approved turbines installed by MCS accredited installers will be eligible for the Feed in Tariff scheme, guaranteeing you a minimum payment for every unit of electricity you generate as well as for every unit you export to the grid.



The Energy Saving Scotland Advice Centre has up to date information on all domestic renewable systems. Visit www.energysavingtrust.org.uk/scotland or telephone them on 0800 512012