

>>> Why Wind Power?

RENEWABLE ENERGY IN SCOTLAND

While renewable energy continues to be the main aspect of the UK's contribution to fighting climate change, onshore wind is also the most cost-effective way for us to achieve a secure supply of low-carbon energy into the future. Scotland is already coal-free in its energy mix and aging electricity generating facilities will continue to be decommissioned over the coming years. In order to maintain the current level of electricity supply and keep up with forecast increases in demand, a significant amount of new generating capacity is required.



The turbines shown in this image are for illustrative purposes only and are not intended to represent the proposed turbines

SUBSIDY - FREE

Under the last UK government's Electricity Market Reform (EMR), the previous support scheme for wind energy, the 'Renewables Obligation' was replaced by a system called 'Contracts for Difference' (CfD). This saw the Levelised Cost of Electricity (LcOE) from onshore wind come down to around £57/MWh in 2020, some 50% lower than expected by the 2013 government.

In the last decade, a number of changes have been made to the support system for renewable energy in the UK and UK and Scottish Policies are increasingly supportive of utilising wind power to combat the energy and climate crises.

Energiekontor is committed to developing robust projects which provide value for money to billpayers and remain viable under the current support scheme

UK ENERGY INDEPENDENCE

There is always a risk of interruption to gas and oil import supplies and uncertainties over global prices and recent global events have resulted in an energy cost crisis for home and business owners.

Having more home-grown energy sources such as onshore wind, combined with demand-side response and improvements to the network, will help to protect UK consumers and businesses from price shocks in the longer term.

The recently published British Energy Security Strategy (BESS) (April 2022), introduced to wean Britain off fossil fuels and boost homegrown energy for greater long term energy security, highlights the need for onshore wind projects.

LARGEST UK RENEWABLE ENERGY SOURCE?

In 2020, the UK generated 75,610 gigawatt hours (GWh) of electricity from both offshore and onshore wind. This would be enough to power 8.4 trillion LED light bulbs. Individually, both offshore and onshore wind electricity generation has grown substantially since 2009. Wind energy generation accounted for 24% of total electricity generation (including renewables and non-renewables) in 2020; with offshore wind accounting for 13% and onshore wind accounting for 11%.

Onshore wind can also make a real contribution to carbon reduction targets. Power from wind farms prevented the creation of almost 36 million tonnes of greenhouse gas emissions in a six-year period- the equivalent of taking 2.3 million cars off the road. The figures from 2008-2014, analysed by The University of Edinburgh in the most accurate study of its kind to date, suggest that greater investment in wind energy could help meet Scottish and UK government targets for carbon emission reduction and net zero.

The CCC Renewable Energy Review 2011 showed that once the back-up capacity is taken into account, as well as other available measures to address intermittency, a system in which 30 to 64% of electricity is generated from renewable sources can still emit less than 50g of CO₂ per kWh in 2030. This is significantly less emissions-intensive than the most efficient gas combined-cycle turbines, which produce around 350g CO₂ per kWh.