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 it's 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 sit at around £79/MWh. The projected cost of new gas (CCGT) generation by 2020 is between £65/MWh and £75/Mwh.

It is expected that improvements in technology and project design will see the LCoE of wind power sit at between £64/MWh and £69/Mwh by 2020. Similar improvements have already been seen in Europe, and the industry is keen to bring these improvements to the UK.

Since the General Election in 2015, a number of changes have been made to the support system for renewable energy in the UK. Energy policy is not devolved to the Scottish government, and any changes will apply across the all of the UK.

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

We must replace around a fifth of our existing electricity generation over the next decade[2] .This means having a balanced energy policy comprising a mix of generating technologies. Every single technology carries risks and that is why the Government considers a balanced approach crucial. For example, the UK is now a net importer of gas. There is always a risk of interruption to gas and oil import supplies and uncertainties over global prices

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. Wind will also be a key component in meeting the UK's 2020 target for energy from renewable sources.

LARGEST UK RENEWABLE ENERGY SOURCE?

In 2014, onshore wind generated 18,611 GWh of electricity, enough to power 4.5 million homes. This represented about 29% of the total UK renewable energy production, and just under 5.5% of all electricity produced. By 2020 it is estimated that onshore wind could provide 24-32TWh of electricity, enough to power up to 7.7 million UK homes.

Onshore wind can also make a real contribution to carbon reduction targets. In 2011, the Department of Energy & Climate Change (DECC) estimated that approximately 6.3 million tonnes of CO_2 were avoided in the UK from onshore wind displacing electricity generated from fossil-fuelled power generation. That is the equivalent of the carbon footprint of a city larger than Leeds.

The Committee on Climate Change's Renewable Energy Review 2011 shows 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 CO_2 per kWh in 2030. This is significantly less emissions-intensive than the most efficient gas combined-cycle turbines, which produce around 350g CO_2 per kWh.

EnergieKontor