

Orkney – energy solutions

How many times do you hear in the energy debate that this or that can't happen? That's where Orkney stands apart – because here we make things happen.

Blessed with buffeting winds, wild seas, streaming tides and productive soils – and as a self reliant and determined community – Orkney is an energy powerhouse for the UK.

But it is not just in the handling and production of energy that Orkney excels. It is also about ideas, collaboration and – above all – finding solutions, particularly energy solutions.

EMEC is well established and deployments of various wave and tidal technologies are underway.

Some 200 MW of onshore wind energy potential has been identified and is actively being developed.

Designs for two novel tidal generators have been developed in Orkney, with the Scotrenewables device now receiving significant financial backing.

Systems for producing bio fuels and latterly biogas have been developed recently.

Not content with sorting out our own energy issues, Orkney based consultants and engineers are engaged nationally and internationally helping governments, businesses and communities achieve their goals and overcome the energy challenges they face.

Given all of this experience at finding solutions it is little wonder that Orkney is now turning its attention to some of the strategic issues the energy revolution is facing.

Ambitious targets have been set over the coming decades to lessen our dependency on



fossil fuels and reduce the UK's carbon footprint.

- Large contributions of renewables to overall energy supply (EU 20% by 2020)
- Reducing our carbon footprint (UK 50% reduction by 2050)
- Large increases in renewable sources of electricity (Scotland 40% by 2020)

One of the first things that Orkney did was to establish the level of energy resources available. The ensuing resource assessment showed that there was a constrained renewable energy development potential of between 1.6 GW and 4.5 GW energy across a range of technologies – particularly marine.

Orkney is actively now developing a sustainable energy strategy including a

vision and targets for energy production in 2010, 2020 and 2050.

This work – and the discussions it has generated – has highlighted some key strategic questions, including how is the energy going to reach the market and what facilities will the future marine renewables industry require

As usual Orkney is seeking to find solutions to these issues. We recognise that land based grid upgrades can only deliver relatively small capacity opportunities for our energy rich islands.

Among innovative alternatives under investigation is the potential for large scale fuel production within Orkney.

Orkney has successfully lobbied to become one of the first RPZ areas in the UK. By allowing a more flexible management of the existing

grid, a small but valuable 15 MW of extra generation capacity has been freed up.

Now we're looking at the charging mechanisms for renewable energy which, as presently configured, would unfairly penalise remote areas with superb natural resources like Orkney.

These islands have been involved with renewable energy for centuries and have the potential, along with other parts of the Highlands and Islands, to deliver a large amount of sustainable power for the UK.

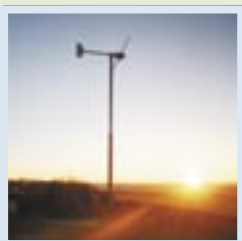
The world stands at a crossroads, with answers to many questions needed before we choose the right way ahead.

One thing is certain – in Orkney lie many of the energy solutions the UK and the rest of the world needs.

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