

Hope springs eternal for Scots wind energy

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The country is the birthplace of wind-powered electricity generation and the windiest place in Europe, with 25% of the continent's offshore resource.

Scotland has capitalised on that to deliver economic and environmental benefits across the country.

The Conservative manifesto commitment to end new subsidy for onshore wind locked both it and large-scale solar – our two cheapest renewable energy technologies – out of the energy market.

With costs continuing to fall, however, a report from Baringa Partners, commissioned by Scottish Renewables, found that the UK Government could deliver 1GW of new onshore wind capacity at no additional cost to consumers over and above the long-term wholesale price of power.

The report's conclusions are dependent on mature renewables being able to bid in future auctions for long-term contracts for clean electricity such as those offered to offshore wind and the new nuclear facility

at Hinkley Point. With two-thirds of the UK's onshore capacity and an offshore sector now getting steel in the water, Scotland has long been a leading champion of the wind sector.

at Hinkley Point.

If onshore wind projects were allowed to compete with other established technologies in an auction in 2018 the report predicts it would clear at £49.40 per MWh.

That would mean successful projects would only receive limited 'top-up' payments over and above the wholesale price of power in the first years of their operation, but would then pay back a greater amount to the public purse over the remainder of their contract as the wholesale power price increases.

The capacity delivered through the auction – most of which is expected to be in Scotland – would result in more than £1 billion of private sector investment in clean energy generation across the country.

It would also mean that subsidies for the sector's best new sites could reasonably come to an end.

The benefits of wind power are clear – the technology is clean, affordable and popular.

Those benefits – and the ways in which we can continue to realise them for Scotland – will be discussed at Scottish Renewables' Onshore Wind Conference in Glasgow on June 20.

Delegates will discuss key issues including finding a route to market, improving the network and the Scottish Government's forthcoming Planning Bill, which looks set to introduce significant changes to the planning system in Scotland.

The event, to be held at Glasgow Caledonian University, is followed on June 21 by our Storage and Systems Conference, which will look at how wind, alongside other technologies, can contribute to the delivery of a smart and flexible energy system.

The UK Government's Industrial Strategy consultation closed recently, and Scottish Renewables response stressed the benefits of wind power by outlining how the technology can help, as the consultation states, "improve living standards and economic growth by increasing productivity and driving growth across the whole country".

We told how Scotland's unique renewable energy resource gives the country "a self-evident competitive advantage in the global clean energy market".

Our response, which was submitted in April, added: "Technological advances and rapid cost reductions are demonstrating that a modern, low-carbon energy system offers increasing potential to improve the competitiveness of our economy while delivering investment and employment across the UK."

One region where the potential future benefits of investment in wind energy is clear are Scotland's islands.

The Western Isles, Shetland and Orkney are home to some of the strongest renewable energy resources anywhere in Europe.

Despite more than a decade of work on the issue, the cost of connecting the islands to the GB electricity grid – thought to be up to nine times more expensive than the GB average – has so far prevented projects there going ahead.

As a result the UK is missing out on renewable energy which could contribute to meeting our 2030 climate change targets while our island communities are missing out on the economic and social benefits that could be delivered by large scale renewable energy development.

We believe that non-mainland GB onshore wind projects must be treated differently

from onshore wind more generally because of their substantially higher grid costs.

The islands projects will only be delivered with government intervention to ensure a viable business case for developers and communities. A consultation on their treatment, currently sitting with ministers, offers that chance.

Delivering the island projects would offer benefits for local people but also wider benefits for the rest of the UK: clean, affordable, home-grown electricity which would contribute to meeting our stretching climate targets.

Onshore wind developers on the Scottish mainland have moved into emerging markets too.

New technology such as energy storage and demand-side response present new opportunities for onshore wind projects to increase the services they can offer the grid.

Delegates at Scottish Renewables Annual Conference, held in Edinburgh in March, heard a new type of power purchase agreement could provide new routes to market for onshore wind projects at all scales.

An increasing focus on energy costs combined with a desire from businesses to 'green' their supply chain is providing a strong push to engage more directly with generators, while the move from fixed subsidies to a more competitive market for generators has meant any certainty in the project finance stage is welcome.

Corporate PPAs are increasingly being seen as a way to bridge the gap between these parties, securing benefits for both.

Early corporate PPA movers in the UK include Marks & Spencer, whose multi-award winning "Price Guarantee Agreement" was a relatively simple form of contract for difference, and latterly major corporates including BT, Nestle, McDonalds, HSBC, Lloyds, and Nationwide.

While this type of contract could become more popular for an industry increasingly working in a post-subsidy world, the number of corporates able to engage in the market may also limit the size of the opportunity.

The requirement for more wind power is clear. The Scottish Government's draft Energy Strategy, which is out for consultation until the end of May, contains an ambitious target first suggested by Scottish Renewables: generating the equivalent of 50% of the country's total electricity, heat and transport demand from renewables by 2030.

Doing that, the Scottish Government's figures show, would require significant new deployment of renewable electricity generation – capacity which could be met not only by new onshore wind sites but also by the repowering of existing ones with more powerful turbines.

So while offshore wind sites in Scotland's Forth and Tay estuaries still awaiting the outcome of an appeal against a judicial review which saw their consents challenged on environmental grounds and the UK Government's moratorium on onshore wind remains, there are grounds for hope.

And while corporate PPAs, energy storage, the Scottish Government's draft Energy Strategy and the potential harvesting of the islands' wind resource don't provide answers on their own, together they show that the appetite for wind energy in Scotland remains as strong as ever.

Scottish Renewables' Onshore Wind Conference and Storage and Systems Conference are being held in Glasgow on June 20 and 21 respectively.

📄 www.scottishrenewables.com/events for more details.