



The fate of UK renewable energy

The government has done a lot of work on renewables – but has it started moving in the wrong direction, wonders **John Findlay**, managing director of Carbon Zero Consulting Ltd, a leading provider of independent design advice on renewable heating technologies

The UK's commitment to replace coal power generation (and later, gas) with low carbon power from nuclear and renewable sources will not only reduce CO₂ emissions but also improve security of supply, generate jobs and end our reliance on fossil fuel. Policy to reach these goals has been, for more than 20 years, rudderless. The new government has picked up the baton with gusto and is now reaching new heights of chaos.

Progress has been made with the installation of onshore and offshore wind arrays, solar "farms" and a splash of hydro-electric. In the right conditions these generate more than 15 per cent of the UK's power with corresponding reduction of "carbon intensity" of our electricity supply. However, we sit shamefully toward the bottom of the European league table for renewable energy deployment. It is often heard that wind turbines "only work when its windy". The UK sits in a windy ocean allowing offshore turbines to generate 40 per cent of the time. Furthermore the potential for domestically engineered tidal power is untapped – and enormous. Tidal energy is always available, zero carbon, secure, predictable and has no waste product.

Since the May election, the Department of Energy & Climate Change has turned towards gas. We are told that coal will be replaced by gas (which has about half the carbon output of coal) from do-

mestic gas resources, imports – and shale gas. This will allow the DECC to claim a reduction of CO₂ output, albeit through replacing one fossil fuel with another. UK shale gas is an entirely unproven resource and highly dubious economically due, amongst many constraints, to greater geological complexity compared to the United States.

Nuclear power, a British invention remember, must be a major part of our future (zero carbon) power supply. For the Chancellor to claim we are "leading the way in nuclear power" is a little disingenuous if you consider we are financially guaranteeing the Chinese and French to design, build and operate new reactors. As a chartered engineer, I and many others are aggrieved that he seemingly cannot trust his own engineers to provide nuclear, tidal or other sustainable power sources given the same degree of financial backing.

A stated intention of predecessor governments was to utilise low carbon electricity to provide heat (and cooling) to the majority of domestic and commercial properties, using heat pumps. This is without doubt the most efficient means to do so. These use the ground or the air as their renewable source of energy with input from (low carbon) electricity.

A criticism of renewable heat and power technologies is their need for subsidy to incentivise uptake. It is not widely known, and certainly not broadcast by

government, that nuclear and fossil fuel technologies are subsidised to a massively higher degree than renewables ever could be. The entire renewable heat incentive (RHI) budget accounts for less than 1 per cent of the DECC's spending, with the remainder consumed by nuclear decommissioning costs. Oil and gas production receives huge tax incentives – a subsidy by any other name, £6bn in 2015 alone.

In the face of the Paris climate conference and ever growing global awareness of the need to reduce CO₂ emissions, the DECC and the Treasury are moving in entirely the opposite direction. Their recent moves include cessation of onshore wind and sustainability measures, huge cuts to feed-in-tariffs (FIT), potential cuts to the RHI – and now subsidies worth millions are being granted to polluting diesel electricity generators . . . You really could not make it up.

The recent "anti-renewable" stance by the government puts at risk the nascent renewable technology sector before it has had a chance to become established. So shouldn't we be asking why we are importing gas from Qatar and Russia, and expertise from France and China, when we have all the engineers and natural resources we need to provide our own sustainable heat and power? ●

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