

UK Energy policy for 2020? Is it all about wind and nuclear?

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So is it all about wind and nuclear? Certainly the planned 30% of power production from wind power, and the as yet undefined future proportion from nuclear, will have a major impact on the de-carbonising of the UK energy sector.

Although having the potential to deliver a major proportion of the power production for the UK, the impact of nuclear will be limited before 2020, due to the combination of slow Government decision-making and the timescales for building new plant. Thus, we can't rely on this technology beyond the existing plant, the proportion from which over the next 11 years is planned to shrink.

The massive expansion of wind power up to, and beyond, 2020 will certainly deliver significant low to zero carbon electricity, but whether this level of expansion can be achieved in the timescale has its doubters. Particularly, the Grid's ability to cope with the variable nature of offshore wind, combined with a recent reluctance for energy companies to invest in some planned major arrays, does throw some doubt on the ambitious plans.

Other generation options?

The continuation, and potential expansion, of fossil fuel generation is an obvious, but controversial option for the UK. Coal has the best potential, but my view is it will be only politically acceptable to any UK major party if this can be used with significantly lower carbon emissions than current plants.

BEAMA members can provide much of the equipment to help deliver these reduced emissions including supercritical boilers, efficient steam turbines and auxiliary plant, and importantly equipment for carbon capture and storage of carbon emitted by these plants. The latter technology requires significant lead times before installations and benefits can be delivered, and therefore BEAMA applauds the recent Government decision on CCS schemes. However, we must be mindful that the proposals are subject to consultation, where further delays could be introduced.

The other big project often talked about is the Severn barrage - and not just in recent times. The idea has been around almost as long as electricity itself. Many articles have, and will, be written on this project's environmental pros and cons, but almost all agree that if built, it would require major investment, and would deliver low carbon energy production well into the future. Perhaps in the next budget this project might get the go-ahead as well.

A negative consequence of delayed decisions on all technologies is that the development of these leading edge technologies happens elsewhere, and could leave the UK as a net importer of technologies once eventual decisions on investment are made. The UK could be a world leader in the development of technologies, their installation and use, with the consequential benefits for the environment and employment - if we have firm Government policies and commitments.

Reductions in energy demands

Often, energy use reductions are forgotten as a tool to reduce the energy generation problem. Over recent months, energy efficiency has commonly become a term used by all political parties, and the media. However, given this enthusiasm there is still considerable potential for making simple, but real, long lasting energy use reductions in homes, businesses and industry.

Two simple measures BEAMA members could deliver to the market to much greater levels are heating and lighting controls for buildings. It is estimated that over 7 million homes do not have a thermostat to control their heating. Given that the reductions by which this measure can reduce energy use - between 9 and 15% - very large opportunities are being lost. The case for installing and using lighting controls is very similar, but with initially more potential in commercial offices and public buildings. Currently, these simple measures are not being installed at anywhere near their full potential.

Two policy changes would help: funding of street by street upgrades of heating systems controls - savings affect households £50-£100 per year, keep manufacture of products in UK factories; with every EPC issued for commercial and public buildings immediate lighting control opportunities are identified and acted upon - savings for these buildings and again keeping factories working.

These two examples perhaps deliver the best opportunities for reducing energy use in the short term, but there are many other products that can be installed and used with the potential to reduce energy use - equivalent to the energy production from a couple of nuclear power plants and a good number of wind turbines! Firm, targeted action by Government is the only way many of these solutions will make their potential savings.

Finally

There are many technologies which can produce sufficient energy for the UK, reduce demands, and as a result reduce overall carbon emissions for the sector. The central question posed: 'Is it all about nuclear and wind?' is clearly 'no'. However, some of the reasons for these technologies possibly not delivering in the short

to medium term are shared by the other potential solutions in generation and in energy use reduction – mainly a lack of firm Government commitment on future policies and investment.

A quick comparison to the investments in the last six months for the financial system shows what can be done when the political world acts; let's please have some of the same thinking in the low carbon energy sector.

An action that all interested in the future of energy policy could make, irrespective almost of preferred solution, is for the future of energy policy to be a key election issue for all three major political parties. BEAMA is planning to achieve this via its 'Climate Change Paper' - the basis for informing, and it is hoped in partnership with, other trade bodies in the sector.