

Healthier via hybrid

Newform Energy Ltd's Anthony Morgan shares his thoughts on the factors needed for new, home-grown innovation to succeed and contribute towards carbon savings...

Global warming, energy security, fuel poverty and international policy, to name but a few, are reasons why the future landscape of the energy mix is in the process of irreversible change.

When it comes to microgeneration as part of that mix, the necessity for a coherent approach to stimulus within the market is obvious. With economic growth stagnant and energy cost increases substantially above RPI, a real push from government to this market sector would not only create many thousands of new jobs, but also go a long way to ensure that we, as a nation, meet our 2020 and eventually our 2050 emissions reduction targets.

The effects of the introduction of the Feed-in Tariff have been plain to see; however, subsequent government indecision, fundamental changes to the FIT structure and ongoing delays to any meaningful announcements regarding the Renewable Heat Incentive have repeatedly thrown this fledgling industry into turmoil, limiting private sector investment and slowing potential growth.

To add to this, the methods by which technologies are assessed make it nigh on impossible for fledgling companies with bright ideas to get their innovations into the market place. This is not only a flaw in policy implementation (one could point to specifics within FIT/RHI regulations that actively stifle innovation), but also a failing in assessment of risk.

As much as 80% of innovation comes from the SME sector, yet it is generally only large, well-capitalised corporations with huge balance sheets who are able to cut through, or indeed influence, the red tape of policy and who can afford to fund R&D to a point where technologies are deemed sufficiently low risk to be financially viable.

However, the financial motivation of many such organisations is often simply to maintain the status quo, thus retaining market share and pricing power; the result being that meaningful change is incredibly slow. Much of the real innovation, capable of making radical step changes, is left to rot on the vine as the status quo perpetuates. The effect of this is that maybe only 20% of potentially viable innovations get the chance to succeed in the marketplace.

In order to make the biggest and most dramatic carbon savings, technologies must be combined and integrated – ‘hybridised’ – into more efficient and useful solutions. Energy is energy; it cannot be destroyed, merely changed. When energy conversion occurs there is generally wasted by-product, for example, where electricity is generated there must be heat as a by-product.

The next big advances in microgeneration will come from hybridisation: combining technologies ensures more utility and higher energy density, ultimately reducing costs and delivering higher benefits. These new technologies must have a chance to win through rather than being stifled at birth through short-sighted regulation and a conservative aversion to the adoption of new solutions.

Government and the public sector need to reflect this reality by looking at all aspects of this market sector, treating the whole process flow, from the seeds of innovation to the manufacture of product, and from production to the market, as one, building a framework of joined-up thinking in order to ensure British innovation has every chance of global success.

If government actions reflected the stated policy to be the ‘greenest government ever’, to breathe life back into British industry and to support innovation, and the public sector was asked to use its immense purchasing power and to change the way it assesses risk, then new home-grown innovation may have a chance to succeed. The consequential effect would be more rapid decarbonisation of our economy, a fast track to energy security, a massive reduction in the levels of energy poverty and the creation of many tens of thousands of jobs in a market sector that has the real potential to realise future growth for the UK economy.



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