Sustainable Innovation 2015

20th International Conference 'State of the Art' Sustainable Innovation & Design 9th – 10th November 2015 University for the Creative Arts Epsom, Surrey, UK www.cfsd.org.uk



What Role Can Community Energy Play in Transforming the UK Energy Market and Creating a Low Carbon Economy?

Stephen Edwards

Community Energy refers to community-led initiatives largely focused on renewable energy generation but also including other activities, such as reducing fuel poverty and increasing energy awareness. This paper explores this fast growing and evolving sector in the UK and its relevance in both transforming the UK's Energy Market and developing more resilient and sustainable communities. The sector has seen an annual growth rate of 30% in recent years and it is estimated that at least 5,000 community energy projects have been or are active across the UK since 2008.

Community energy projects are not only increasing in number but also in size. Early pioneering community projects typically produced 20kW but by 2020 it is estimated that the average installation size for community energy projects will reach 2.5MW. Community energy is predicted to continue rising and the Government have set a target to grow the sector 40 fold by 2020 with an output of 3GW from wind, solar and hydro.

The Government has laid out its support for this Community Energy revolution with the UK's first Community Energy Strategy launched in early 2014. While the Community-led renewables sector still only contributes a small percentage of the overall UK energy mix, the government acknowledges the important role that community energy plays in driving forward a low carbon economy. Community energy offers a local response not only to reducing carbon emissions through the generation of renewable power and increasing energy efficiency, but also in supporting wider social benefits, including increased energy awareness; stronger, more resilient communities; and new skills development in the green economy.

National policies, planning frameworks and regional energy strategies have all provided a foundation for this transformation but it is pioneering community action that has helped steer this new course, with exemplar projects emerging from Cornwall to London, Manchester to the Scottish Isles.

In difficult economic times and with severe limitations on public spending, many community energy projects have successfully used community share schemes and crowd funding as an alternative capital investment source and it has been estimated that in 2014 £30 million was raised through community energy share schemes. A variety of business models are also being developed, including partnerships and joint ventures between community groups, local authorities, housing associations and renewable energy developers.

While the Community Energy sector may be a long way from becoming a major contributor to the UK'S Energy Market, it's recent rapid growth demonstrate both a need and public interest in developing local sustainability solutions that offers much wider benefits than just the energy generation itself. It is evident that the success of Community Energy in the UK can build stronger, more resilient communities more in control of their energy needs and, in so doing, this fast evolving sector has the potential to act as a catalyst and source of inspiration for transforming and decentralising the UK's Energy Market and building support and growth for a low carbon economy.