

Crowdfunding and its potential to revolutionise the renewable energy sector

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Crowdfunding is the process of generating financial support for a project from a large number of individual contributors. The range of projects is diverse and ranges from arts and culture projects such as film production or video game design, to helping entrepreneurs set up a new business or fund new product development. Projects are usually hosted on online platforms, some of which (e.g. Kickstarter and Indiegogo) are quickly becoming household names, while others that are much more specialised and cater to a niche market. Generally, projects offer funders contribution-based rewards ranging from signed CDs, walk-on parts in a film or an early prototype of a new product. However, many projects and platforms exist that are based on pure 'donations' models, as well as those that offer equity in a business in return for (usually more substantial) contributions.

Crowdfunding is radically different to most established forms of finance and investment, largely due to the effect of the 'wisdom of the crowd', which is a fundamental component of the model. Taking the average response to a problem from a large number of people has been shown to be as effective as professionals; if not more so. This has also been shown to be true in crowdfunding, with academics at the Universities of Harvard and Pennsylvania showing that projects in receipt of crowdfunding are ultimately at least as successful as those in receipt of funding from traditional sources. Indeed, crowdfunding actually allows many successful projects to flourish that would otherwise have been rejected by so-called experts. Crowdfunding therefore has the potential to plug a significant funding gap for SMEs and new business start-ups that may otherwise struggle to access the finance they need to grow. A crowdfunding campaign is also a great way for new enterprises to test their market and generate both publicity and a community of enthusiastic early adopters.

As very substantial sums can be made up from small financial contributions in sufficient quantities, crowdfunding is a much more open and democratic form of finance. The low barriers to participation mean that everyone can make a difference no matter how large or

small their contribution. Because activity takes place almost exclusively online, there are comparatively low search and organisation costs associated with bringing together large groups of funders from around the world. Indeed, the most significant barrier to participation to-date has been regulation, particularly in the area of equity crowdfunding. In the US, it has essentially been impossible for ordinary members of the public to become involved in this form of crowdfunding, while the Financial Conduct Authority in the UK are keen to limit involvement only to 'sophisticated investors' and restrict advertising or endorsement of equity projects to ordinary members of the public.

Despite these obstacles, the sum total of crowdfunding activity across the globe is becoming increasingly significant. The market research firm Massolution estimates the value of total worldwide crowdfunding activity to have been around \$5bn in 2014 and all the available evidence suggests that significant growth is likely to continue at least into the medium term. A great deal will depend on legislative and regulatory initiatives such as the Jobs Act in the US and the FCA 'Innovation Hub' established in the UK. There is a great deal of promise in equity crowdfunding, but this potential will only be achieved if it is truly made open to all – to the crowd – and does not remain the exclusive preserve of the privileged few sophisticated investors.

Despite the strong upward trends in growth and huge potential, one should not operate under the illusion that launching a successful crowdfunding campaign is easy. The reality is that the market is highly competitive and the available data shows a great deal of variation in the outcomes of projects. These range from the relatively small number of successful projects and platforms that generate a very significant proportion of these headline figures to the majority of projects that raise very little or even nothing at all. Despite this, crowdfunding has the potential to bring people together and initiate positive change by funding projects that matter to them, from a local community level right up to the funding of innovative responses to global problems, such as climate change and renewable energy.

As of 2013 renewable energy provides 21.7% of all electricity generated across the globe. More and more countries are committing themselves to the Kyoto agreement, with key deals recently being struck between China and America. This may lead to other countries 'catching up' to the current leaders in renewable energy generation such as Iceland, Norway, Denmark or New Zealand; all of whom have a majority of their energy from renewable and sustainable sources. In the UK, renewable energy is high on the agenda as a result of the financial incentives announced in the Chancellor's Autumn Statement.

Crowdfunding has grown and developed in parallel with a number of significant developments in the renewable energy sector, with the number of innovative ideas and projects in renewable energy growing daily. A number of large scale 'crowd-led' projects have taken place in Nordic countries such as Norway and Denmark, where they have had the effect of reducing carbon emissions and shoring up energy supplies for the future. Cooperatives and collaborative finance tend to play a much larger role in the energy markets of these countries; one of the largest wind turbine Cooperatives in the world is in Denmark, which is 50% owned by a 'crowd' of 10,000 investors and 50% by a municipally utility company, which is itself also publicly owned.

Some local cooperatives have even begun issuing community-based shares via online crowdfunding, such as the Leeds Housing Association scheme aiming to tackle fuel poverty by installing solar cells on residents' roofs. The project was hosted on the 'Abundance' crowdfunding platform and brought together a number of renewable energy companies from around the UK, such as Leeds based Oakapple Renewable Energy and Edison Energy from Scotland. To-date, the project has successfully raised over £3.1 million and offers returns of 7.5% on invested capital, making this the largest ever crowd funded solar energy project in Europe. Other examples are now starting to be seen up and down the UK, with examples very close to home, such as energy cooperative Hampshire Energy. However, the FCA has once again restricted the growth in this area, through the overly stringent application of rules and regulations that block new energy cooperatives on the basis that they would be selling to their

members. A consultation process concluded at the end of November without bearing fruit; a very strange situation given that all of the major political parties claim to be in favour of energy cooperatives and renewables.

Putting aside the current political and regulatory obstacles, the future for renewable energy looks to be very exciting, with significant progress being seen in the production and consumption of energy, such as graphene-hydrogen. In the past, we have seen a number of promising ideas and potential solutions to the energy crisis being bought by large multinational corporations and never seen again. This cycle cannot be allowed to continue. Crowdfunding has the potential to empower groups of people who feel a responsibility towards the planet and allows them collectively wield their power in order to make a difference. The short-term solutions pursued by governments and corporations, such as tokenistic subsidies or the controversial plans for fracking, can potentially become things of the past.

For this reason, green crowdfunding is not going anywhere but up. Energy crowdfunding is likely to only grow in prominence as people become aware of the possibilities and opportunities offered for a more sustainable society - and for the first time can have a real stake in it themselves. Current evidence suggests that the really big challenges facing society, such as energy and climate change, cannot be met by the state, large companies, well-intentioned individuals or any other party acting alone. Only when society pulls together can we really drive forward significant change. Crowdfunding offers the possibility of a powerful step in the right direction, especially in sectors of strategic and societal significance such as renewable energy.