

*New Economies, Innovative Markets*

# Re-energising Our Communities

Transforming the energy market through  
local energy production

**A ResPublica Green Paper**

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**ResPublica**  
*changing the terms of debate*

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We intend Green Papers to spark debate and more extensive work and research. We hope that this publication does just this.

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# 1 Overview

Energy market diversification has been a heated topic of political debate. Attempts to address an unbalanced and unsustainable market have largely been approached in terms of widening consumer choice, ushering in new competition and breaking up supply. But such focus is missing the real opportunity, which is to change the market completely by encouraging consumers to become producers and owners of their energy.

By the term 'community energy', we are in this paper referring to the means of generating and distributing energy that is owned and led by communities, rather than by individuals or private businesses. Community energy vehicles are democratically accountable to community members and participants and may deliver a financial return to investors, or reinvest surplus profits back into the project and wider locality.

Empowering users to become owners and 'market-makers', community energy in both its practical manifestations and the ideas which it represents is an ideal of the Government's 'big society' and localism agendas.

To create inclusive local and national benefits, which broker in local groups from both disadvantaged and more affluent areas, we need to enable and incentivise associative and group practice to play a competitive role in market provision. There are already a number of examples from within the UK and abroad, where countries such as Denmark and Germany have shown the potential for communities to lead their local renewable energy economies.

This paper reviews the benefits created by existing community energy schemes, and how these create a framework of responsibility for users, landowners and developers. Though the environmental and social effects are benefits in themselves, the micro-economies created via community energy projects are transformative on a much broader level, achieving incremental economic change to the entire supply and demand process.

Community schemes can only begin to transform the wider energy economy when self-supporting trust networks are enabled both within and between communities and other partners. Through 'market-making' practices, local residents achieve powers of ownership, commissioning and distribution, bringing real choice and true 'bottom up' competition back into the entire system and creating opportunities for all types of communities, beyond the choice few.

This paper turns to a variety of inspirational cases, from Fintry Renewable Energy Enterprise, which negotiated a community stake in a nearby wind farm being developed by a commercial company; West Oxfordshire's Low Carbon Hub, which aims to generate and connect enough energy to replace the local Didcot power station closing in 2015; and the German town of Schönau, which set up its own energy co-op to buy the local electricity grid.

In order to incentivise the formation of many more like these, and develop stronger and more self-sustaining 'local trust economies' that have the potential to change the macro-energy landscape, we recommend that community energy must be aggregated across policy agendas.

The Localism Act offers a number of opportunities for community projects to attract further finance and assets that will enable them to thrive. The Department of Energy and Climate Change, the Department for Communities and Local Government, and the Cabinet Office should orchestrate a co-ordinated support programme for community energy which recognises the building of local community-led partnerships as central to opening up production and supply. The

Treasury should also help to facilitate new community energy schemes and partnership models by addressing the way tax reliefs incentivise, or inhibit, community finance.

Private developers and suppliers, local authorities, businesses and housing associations are well placed as guarantors and capacity builders within the UK's emerging community energy market, and should be recognised and positioned as such in the national and local policy framework. With the resources, assets and position of such partners, new models of social and economic organisation can come together and grow in capacity and legitimacy over time.

Communities should also be granted the right or entitlement to own their local distribution grids, through clear legal structures and partnerships. Such partnerships should be encouraged through the exploration and creation of new 'hybrid' company models that would allow for both community and private sector returns.

There are, in short, unprecedented opportunities for the community energy sector, in addition to those for Government, local authorities, communities, businesses, energy suppliers and industry players. By drawing such opportunities to the forefront of market reform, the sector can usher in, not only a responsible capitalism, but a truly *transformative* capitalism which places the market back into the hands of the people.

# 2 Introduction

Our energy market doesn't work in the interests of ordinary people. Bills are high and fuel poverty is getting worse.

With 99% of all consumers receiving their supply from one of the 'big six' energy companies, recent policy has focussed on market diversification through widening consumer choice.<sup>1</sup> But Government is missing the real opportunity: to transform the energy market completely by encouraging passive consumers to become active producers and owners of their own energy supply. In keeping with the Government's 'big society' and localism agendas, community energy presents the opportunity to spread the ownership of assets and make social outcomes central to economic targets, offering the chance to empower communities to contribute to market reform.

By the term 'community energy', we are in this paper referring to the means of generating and distributing energy that is owned and led by communities, rather than by individuals or private businesses. Community energy vehicles are democratically accountable to members and participants and may deliver a financial return to investors, or reinvest surplus profits back into the project and wider locality.

The spectacular success of the Department for Energy and Climate Change's feed-in tariff policy over the last 18 months shows that there is no lack of appetite among ordinary people to become energy producers. But the microgeneration market has so far disproportionately benefited larger private providers, who can attract commercial loans, and individual homeowners with the finance to invest in their properties.<sup>2</sup>

To deliver more inclusive benefits to groups across the socio-economic spectrum, we need to encourage and enable community ownership of renewable energy assets, allowing communities to play a competitive role in the both local and national markets. Group and community projects, not just individuals and businesses, must be incentivised to usher in new models of social and economic organisation. A 'responsible capitalism' may begin to call markets to account, but a truly transformative capitalism will place markets back into the hands of the people.

Although the community energy sector is still in its infancy in the UK, there is enough experience both here and in countries such as Denmark and Germany to show what can be achieved. In Germany, it has been estimated that the renewables industry was worth €6.8bn to municipalities in 2009, with 2.2m solar power installations, 22,000 wind energy systems, 400,000 heat pumps and 4,500 biogas plants.<sup>3</sup> Renewable energy production constitutes 20% of Germany's entire electricity output, with communities alone generating around a quarter of this.<sup>4</sup>

<sup>1</sup> Ofgem (2011). The Retail Market Review – Findings and initial proposals. [online] [http://www.ofgem.gov.uk/Markets/RetMkts/rmr/Documents1/RMR\\_FINAL.pdf](http://www.ofgem.gov.uk/Markets/RetMkts/rmr/Documents1/RMR_FINAL.pdf) (Accessed 23 January 2012), p.5.

<sup>2</sup> A review of the past eighteen months of the Feed-in Tariff scheme (1 April 2010 to 30 September 2011), for example, reveals that domestic installations take a 73% share of total installed capacity, and non-domestic (commercial) installations take 22%. For the 'community sector', this share is 2%. Ofgem (2011). Feed-in Tariff Update: Issue 6 [online] [http://www.ofgem.gov.uk/Sustainability/Environment/fits/Newsletter/Documents1/Feed-in%20Tariff%20\(FIT\)%20Update%20Newsletter%20Issue%206.pdf](http://www.ofgem.gov.uk/Sustainability/Environment/fits/Newsletter/Documents1/Feed-in%20Tariff%20(FIT)%20Update%20Newsletter%20Issue%206.pdf) (Accessed 23 January 2012).

<sup>3</sup> Renewable Energies Agency (2010). Value Creation for Local Communities through Renewable Energies: results of the study by the Institute for Ecological Economy Research. *Renews* 46, December 2010 [online] [http://www.germany.info/contentblob/3097466/Daten/1196464/RenewsSpecial\\_DD.pdf](http://www.germany.info/contentblob/3097466/Daten/1196464/RenewsSpecial_DD.pdf) (Accessed 23 January 2012).

<sup>4</sup> National Trust (1 February 2012). UK organisations call for energy revolution [online] <http://www.nationaltrust.org.uk/what-we-do/news/view-page/item726396/> (Accessed 1 February 2012).

As Jeremy Rifkin argues, localised energy production creates the potential for a 'third industrial revolution' that could generate thousands of jobs and business opportunities through the creation of a distributed 'energy internet' – a system in which individuals can produce, deliver and receive renewable energy generated nearby.<sup>5</sup>

Meanwhile the scale of fuel poverty in the UK, which has affected those with the least disposable income the most, underlines the urgency of the situation. The failure of ten years of public policy to end fuel poverty does not just depict government failings; it reflects an energy market whose transmission and production infrastructure is not subject to sufficient competition and is therefore acutely vulnerable to the rising commodity prices of gas, oil and coal, all of which are directly reflected in consumer bills.

In the UK, communities generate less than 1% of all renewable energy, but the number of community energy projects is steadily on the rise.<sup>6</sup> We need to tap in to the potential of this emerging market to enable communities to transform both themselves and their surrounding environment.

Community-owned models often reveal that when people have the opportunity to become shareholders and commissioners of their own energy, they become much more creative about the use of profit for public good. The environmental, social and economic benefits have been demonstrated by some of the early explorers of community energy in the UK, and have provided the basis for partnerships premised on mutual and social benefit to thrive.

These benefits are vastly overlooked in current policy debate. The focus on drawing new suppliers into the existing energy market and providing consumers with greater choice or purchasing power may bring bills down or limit their increase, but continues to treat the public as passive consumers rather than potential producers and 'market-makers' – those who are able to build and develop sustainable models for wider public good.

To realise this potential, we need to take what seems to be the next logical step: to broker local communities into national energy market reform and deliver local empowerment for those without influence and choice.

This will require the Department of Energy and Climate Change (DECC) and Ofgem, as well as other government departments, to rethink their approach to market reform and regulation. It is important that they take the opportunity to learn from European nations such as Denmark, Finland and Germany, where different models of community investment, ownership and microgeneration sit alongside the standardised models of energy production and delivery.

Crucially, this approach must recognise that communities and neighbourhoods will always be best placed to discern local need, identify shared value and assess what resources are at hand. National policy must therefore adopt an enabling role, allowing communities to act freely as producers, owners and partners in energy ventures.

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<sup>5</sup> Rifkin, J. (2011). *The Third Industrial Revolution: how lateral power is transforming energy, the economy, and the world*. New York: Palgrave Macmillan.

<sup>6</sup> Over 30 renewable energy co-operatives, for instance, have been registered since 2008. There are also now 19 trading energy generation co-operatives, which have achieved a wholly owned generation capacity of 19.6MW and part ownership in a further 1.22GW of capacity through investment in larger commercial schemes. Willis, R. And Willis, J. (2012). *Co-operative Renewable Energy in the UK: a guide to this growing sector* [online] [http://www.uk.coop/sites/default/files/RenewableEnergy\\_0.pdf](http://www.uk.coop/sites/default/files/RenewableEnergy_0.pdf) (Accessed 23 January 2012) p.4 - 5.

# 3 Beyond consumers, towards producers

The structure of the UK energy market is fundamentally different from other commodity markets. Consumer goods, such as clothes or computers, are open to a range of retail options, but emerging energy generators and suppliers – whether businesses or communities – have limited opportunities.

While consumers have been able to switch suppliers, they have been relatively powerless to resist sweeping price increases such as those announced by all the major utility companies in 2009-10. This paucity of choice encourages a kind of learned helplessness, in which users exercise marginal choices on price while losing the opportunity to specify how their energy is generated, who owns the generating capacity and what happens to the profits created. Supply has become disjointed from demand, leading to inefficient and irresponsible consumption.

Renewable energy, on the other hand, offers unique opportunities. By virtue of the diversity of scale, technologies, and the availability of resources, the generation of renewable energy can take place across the country and be made accessible to individuals and communities alike. Consumers can become producers at a local level, matching their local concerns and needs with technologies that are best suited to their locality. Communities are able to make decisions over and above purchasing power alone, exercising choice over even the energy source itself.

## 3.1 The Local Benefits of Renewable Assets: Environment and Beyond

Even though the UK community energy market is in its infancy, a review of the benefits created by existing schemes reveals the hybrid value that they can create in challenging economic times.

While diversifying supply may help reduce energy bills, diversifying production can achieve both access to assets and much wider social outcomes. There is evidence that community organisations are both more ambitious and more imaginative than the larger power companies in testing alternative energy sources, and finding ways to make them work for local benefit. Ashton Hayes – which aims to be Britain's first carbon neutral village and has already reduced its emissions by 23% since 2006 – and the Transition Town movements have begun to show what can be done.<sup>7</sup>

Community ownership also builds resourcefulness and encourages innovation. A study by Community Energy Scotland for the Joseph Rowntree Foundation found that the wider benefits of establishing community energy schemes include improved facilities, income streams, volunteering opportunities, transferable skills and increased awareness of climate change.<sup>8</sup>

Sheffield Renewables, a social enterprise that develops renewable projects in and around the Sheffield area, has demonstrated how local support and community investment can enable a series of innovative ventures. It has recently received planning permission for a micro-hydro scheme at Kelham Island on the river Don, and has also raised more than £65,000 through a community share issue for a second scheme at Jordan Dam further downstream. This will make it the largest community hydro scheme to gain planning permission in the UK so far, with the capacity to produce

<sup>7</sup> Ashton Hayes Going Carbon Neutral [online]. <http://www.goingcarbonneutral.co.uk/> (Accessed 20 January 2012); Hopkins, R. (2011). *The Transition Companion: making your community more resilient in uncertain times*. Totnes: Green Books.

<sup>8</sup> Gubbins, N. (2010). *The Role of Community Energy Schemes in Supporting Community Resilience*. York: Joseph Rowntree Foundation.

310,000Kwh of electricity per year, enough to power 80 homes.<sup>9</sup> Experience of urban generation in the UK is limited, but initiatives like Sheffield Renewables show how the potential is beginning to be tapped.

Community energy generation also builds in a framework of responsibility for users, landowners and developers. A constant refrain among commentators on climate change is that individuals and organisations find it difficult to change their behaviour, and to live in a way that consumes less energy and minimises waste.<sup>10</sup> As commissioners and owners, as well as users, where local communities can see the connections between the sources of the energy they use and their patterns of consumption, attitudes are far more likely to change.<sup>11</sup>

On the Scottish Island of Eigg, residents have agreed to limit their consumption to match the generating capacity of their community-owned wind turbines and hydropower.<sup>12</sup> Owned on behalf of its 100 residents by the Isle of Eigg Heritage Trust, a partnership between local residents, Highland Council and the Scottish Wildlife Trust, the practical difficulties in connecting the island to the national grid prompted residents to take energy provision into their own hands. Residents now take responsibility for operating and maintaining the system. Around 90% of the island's energy is now from renewable sources – mostly hydropower, with solar panels and wind turbines for backup and two diesel generators to fill in any gaps.

The Trust has invested in energy efficiency measures and solar hot water systems to ensure residents keep warm. The island's energy grid, completed in 2007, is managed by Eigg Electric, a subsidiary of the Heritage Trust, and local residents have been trained in its operation.

Not only does the grid supply the power the islanders need, but energy efficiency measures coupled with an awareness of the demands on the system and its capacity to generate electricity have reduced consumption dramatically. Islanders use only half the electricity of a typical British household, and their carbon emissions have fallen by 47%.

The island has become more resourceful and responsible since being taken over by the heritage trust; finding new ways to provide renewable energy and improve the energy efficiency standards of local homes and businesses, and adjusting behaviour so the entire community can manage its energy demand and reduce carbon emissions.

This is in stark contrast to the system of centralised supply under which most of us live. An increase in demand is met with an increase in supply, creating high levels of waste and surplus capacity in the process.<sup>13</sup> Because there is no obvious connection between the energy that comes into people's homes and the level of their consumption, price becomes the only mechanism to encourage responsible usage.

Inspiring studies also come from social housing providers and organisations such as development trusts, who are well placed to promote community energy in towns and cities, building on their existing concerns of community benefit and local enterprise. Each community is able to determine what is of value to them, what best fits their local environment and

<sup>9</sup> Sheffield Renewables [online] <http://www.sheffieldrenewables.org.uk/> (Accessed 20 January 2012).

<sup>10</sup> Hirsch, D. (2011). Do greener choices add up to an acceptable living standard? [online] <http://www.jrf.org.uk/blog/2011/12/greener-choices-acceptable-living-standard> (Accessed 20 January 2012)

<sup>11</sup> In addition to the cases highlighted in this paper, a recent survey by Good Energy of 500 owners of microgeneration technology, for instance, revealed that two thirds had changed their behaviour in accordance with levels of generation. Good Energy (2011). Feed-in Tariff Report Updated October 2011 [online] <http://www.goodenergy.co.uk/media/BAhbBIsHOgZmlh00ZWlxNGZmNWlwYTBhYjZkN2YwMDAwMDM/FIT%20report.pdf?suffi=-.pdf> (Accessed 23 January 2012) p.13. Studies conducted in Germany have extended this further to investigate the effect of local ownership on attitudes toward renewable energy and responsible use. Taking two wind farm projects – one locally owned and one privately owned – from two different towns, one study has shown that attitudes toward local wind power was greater amongst nearby residents for the former than the latter. Kuik, O. And Musall, F B. (2011). Local Acceptance of Renewable Energy – A Case Study from Southeast Germany. *Energy Policy*, 39 (6), June 2011, pp. 3252-3260.

<sup>12</sup> Murphy, J. (2010). At the edge community ownership, climate change and energy in Scotland. York: Joseph Rowntree Foundation

<sup>13</sup> Willis, R. (2006). Grid 2.0: the next generation [online] <http://rebeccawillis.co.uk/downloads/Grid20TheNextGeneration.pdf> (Accessed 23 January 2012)

what is needed to make their projects come to life. There is potential to use existing incentives more effectively – incentives that might link up community energy to the wider concerns of each locality, and to opportunities available for further partnership and support.

### 3.2 Creating Local Trust Economies

Via an incremental process which begins at the grassroots level, communities can be seen to move beyond the environmental and social benefits of local generation to create clusters capable of impacting on much wider economic and infrastructural concerns.

Community energy projects can only begin to transform the wider energy economy when self-supporting networks of local individuals, businesses and social enterprises cluster around the common purpose of energy production, distribution and consumption. Trust between individuals within communities, and between communities and potential partners, is crucial to this venture. Such 'local trust economies' reveal mutual social benefits and offer a platform to create dynamic 'social supply chains' built on relationships and a concept of public good.

Local trust economies can grow through personal connections and social media in ways that are unavailable to state-run or large private enterprises. The rise of platforms such as PledgeBank.com, where users agree to support a cause or project if others do so too, is indicative of the new culture of peer-to-peer action which can be extended to economies of trust amongst neighbours in response to local need.<sup>14</sup>

Generous returns are already delivered through small investments in national renewable schemes, through products such as 'ecobonds', where individual investors can receive up to 6.5% returns.<sup>15</sup> Personal connections and trust at a local and neighbourhood level are able to attract wider community support and seed capital. Community-owned energy projects have for instance been able to use the legal model open to co-operatives to raise capital equity from local people in the form of 'community shares', which have alone raised £16.3 million for investment in renewable energy co-operatives.<sup>16</sup> Torrs Hydro in New Mills, Derbyshire – home to the UK's first community-owned hydro scheme – initially attracted more than £125,000 through a community share offer, with most shareholders coming from the locality itself. Established as an Industrial and Provident Society, Torrs Hydro New Mills Ltd, it was able to acquire the upfront infrastructure costs typical of renewable energy which, as with other models of this sort, serves to alleviate dependence on higher risk debt finance.

The revenue from Torrs Hydro has also been a direct source of financial and social investment back into the community. Shareholders will benefit from a dividend if the scheme is successful, and a share of the profits will be ploughed into local regeneration projects in addition to an educational programme to reach out to local schools.

Such benefits can be delivered on a number of different scales. In Copenhagen, for example, more than 8,600 residents are investors in the Middelgrunden Wind Turbine Cooperative, which owns half a 20-turbine offshore wind farm that generates profits for the city as well as clean energy for local people.<sup>17</sup> Group projects of this nature draw people and communities together around a common cause, whilst simultaneously generating good financial returns for greater investment and use within the community. This has the potential to significantly impact on communities currently facing economic hardship – building a much more resilient community infrastructure like those mentioned in section 3.1.

<sup>14</sup> PledgeBank [online] <http://www.pledgebank.com> (Accessed 23 January 2012).

<sup>15</sup> Ecotricity (2011). Ecobond Confirms Britons' Appetite for Green Energy [online] <http://www.ecotricity.co.uk/news/news-archive/2011/ecobond-confirms-britons-appetite-for-green-energy> (Accessed 24 January 2012).

<sup>16</sup> Willis, R. And Willis, J. (2012), p.18.

<sup>17</sup> City of Copenhagen (2011). Copenhagen – Beyond Green. [online] <http://greengrowthleaders.org/wp-content/uploads/2011/10/CPH-Beyond-Green.pdf> (Accessed 20 January 2012).

Local trust economies can also develop between the community and wider established partners. Fintry, a village near Stirling in Scotland, is situated on high ground and not connected to mains gas. Fuel poverty was a serious problem for many of the village's 330 households, so they took matters into their own hands. Fintry Renewable Energy Enterprise (FREE) was set up in 2003 in order to negotiate a community stake in a nearby wind farm being developed by a commercial company, Falck Renewables. Involvement in energy generation was seen as a way of financing energy efficiency measures that could help to reduce levels of consumption. Following successful negotiations Fintry Development Trust was established as a charity in 2007 with FREE as its trading arm. The development trust has over 150 members out of an adult population of around 500, and eight elected directors.

Fintry demonstrates the creative approach that is at the heart of many community energy schemes. It involves a successful partnership between local residents and a commercial developer, with one turbine set aside for community benefit. It shows how income is recycled within the locality, funding improvements that increase the energy efficiency of local homes and put money back into local people's pockets. A total of 152 homes were insulated and these households' fuel bills dropped by an average of just over £600. As Murphy (2010) argues, community ownership brings issues of social justice back into the debate about sustainable development and climate change.<sup>18</sup>

Successful community-private partnerships have been accomplished to a much larger scale in Germany. The town of Schönau, near Freiburg (Southern Germany), for instance, set up its own energy co-op to buy the local electricity grid when the licence to run it came up for renewal. Schönau had to negotiate with the larger energy providers, in order to take more control of their distribution networks and local connections between production and supply. It now supplies energy to more than 115,000 households.<sup>19</sup>

Both Schönau and Fintry's experiences reveal how 'local trust economies' can develop, creating new partnerships between communities, local government, businesses, developers and providers. Most localities are not disconnected from the main grid, as with the community on the Isle of Eigg, and will therefore need to negotiate and liaise with those who hold potential for the use of assets and resources that are owned or run by private developers and businesses. Communities will not have the resources to establish a sustainable energy production network alone – the opportunity for trust and relationships must therefore be central to the community energy market's development.

Partnerships within communities in the UK have started to expose the opportunities available when underused land and assets are revealed and harnessed. Harvey's Brewery in Lewes, for example, was recently transformed into one of the first community-owned solar power stations in the country.<sup>20</sup> Finance was raised by a community share launch, initiated by OVESCO Ltd, to install 98kW solar photovoltaic panels on the roof of the main storage and distribution warehouse.

A community in West Oxfordshire has also recently been awarded £128,000 by DECC to create a 'people's power station'. Oxfordshire's Low Carbon Hub already has further ambitions to generate and connect enough energy to replace the Didcot power station, which is scheduled for closure in 2015. Rather than introducing another power station in to the community, the Low Carbon Hub is keen to set their own targets to reach local demand, creating a far more community-centred approach to generation.<sup>21</sup> The community, in partnership with existing infrastructures and businesses, reveals an appetite amongst people to connect disaggregated generation in order to exercise more control over local demand and supply.

<sup>18</sup> Murphy, J. (2010). *At the edge community ownership, climate change and energy in Scotland*. York: Joseph Rowntree Foundation.

<sup>19</sup> Woolford, J. (10 November 2011). *Waking up to an affordable energy future*. [online] <http://www.forumforthefuture.org/blog/waking-alternative-energy-future> (Accessed 20 January 2012).

<sup>20</sup> Willis, R. And Willis, J. (2012), pp. 8-9.

<sup>21</sup> Oxford Mail (1 February 2012). *People Power Given a Green Grant* [online] [http://www.oxfordmail.co.uk/news/9499895.People\\_power\\_given\\_a\\_green\\_grant/](http://www.oxfordmail.co.uk/news/9499895.People_power_given_a_green_grant/) (Accessed 1 February 2012).

These cases demonstrate how, albeit incrementally, communities can and do become ‘market-makers’, giving local residents powers of ownership, commissioning and distribution and bringing real choice and true ‘bottom up’ competition back into the entire system.

Increasingly, we need to recognise the nation’s energy grid as a two-way rather than one-way street, with inputs from local communities as well as outputs to businesses and consumers. Local microgrids – public or private – can complement the national energy distribution network, enabling communities to become contributors as well as consumers. Local groups who club together to bid for collective ownership of a renewable asset could eventually come to own and run their local grid through a process which allows for the development of wider trust networks between suppliers, developers and communities, leading toward a self-perpetuating mutual gain.

## 4 Realising opportunities

### 4.1. Enabling the Micro through a ‘Joined Up’ Approach

Rather than referring to the community as simply an additional benefit to the functioning of ‘mainstream’ markets, energy policy and regulation needs to recognise the crucial role that communities play as the ‘co-producers’ and ‘market-makers’ in effective and sustainable, long-term reform.

Ofgem’s approach to regulation largely ignores the social and economic potential of community energy. Its review of the retail energy market recommended simplifying tariffs to make pricing clearer to consumers, and proposed that suppliers should auction off 20% of power they generate in order to help new suppliers enter the market.<sup>22</sup> This will not help community organisations, which are not in a position to buy bulk supplies, and will not change the type of energy that is generated.

Whilst current DECC policy seeks to provide 15% of all the UK’s energy from renewable sources by 2020, community production schemes are largely unacknowledged as key to reaching such goals. Moves to reform the electricity market have also given little weight to diversity of supply and therefore offer little mention of community energy generation.<sup>23</sup> Instead, DECC perhaps relies too much on ad-hoc announcements of support for community renewable schemes.<sup>24</sup>

Disaggregating ‘community energy’ across policy agendas can be damaging, and risks promoting perverse incentives to effective local generation and supply.<sup>25</sup> Difficulties with finance, skills and resources will greatly differ for different communities – particularly for disadvantaged and underdeveloped areas – and the impact of changes to legislation will come to affect some communities far more than others. Community energy is currently without a united voice – one that could feed in to DECC and other government departments with a vision to draw community energy into the centre of the localism agenda and ongoing energy market reform. Rather than take on this role internally, DECC should therefore recognise the need for a co-ordinated support programme for community energy that is independent of the department

<sup>22</sup> Ofgem (2011). Retail markets: review and remedies. [online] [http://www.ofgem.gov.uk/Media/FactSheets/Documents1/RMRfactsheet\\_energy%20prices%20update%20FS.pdf](http://www.ofgem.gov.uk/Media/FactSheets/Documents1/RMRfactsheet_energy%20prices%20update%20FS.pdf) (Accessed 23 January 2012).

<sup>23</sup> In terms of scale, ‘community energy’ has been defined by DECC as projects of up to 20MW, which means that some schemes qualify for the feed-in-tariff (up to 5MW), but others are encompassed under the proposals for Electricity Market Reform (5MW and above). The ‘community energy market’ as a whole is therefore excluded from EMR. DECC (2011). Microgeneration Strategy. [online] <http://www.decc.gov.uk/assets/decc/11/meeting-energy-demand/microgeneration/2015-microgeneration-strategy.pdf> (Accessed 23 January 2012).

<sup>24</sup> Department of Energy and Climate Change (16 January 2012). £4m Boost for 82 Local Energy Schemes. [online] [http://www.decc.gov.uk/en/content/cms/news/pn12\\_002/pn12\\_002.aspx](http://www.decc.gov.uk/en/content/cms/news/pn12_002/pn12_002.aspx) (Accessed 25 January 2012).

<sup>25</sup> See, for example, Willis, R. And Willis, J. (2012), p. 32 & pp. 35-36.

and driven by the industry. Such a body, which could build on existing coalitions, could also pool resources, advice and best practice for groups interested in community energy or owners of community energy projects across the country. The independent coalition should also seek to take on a specific commission to review which partnerships and forms of ownership work best in particular areas, and whether certain models more than others can deliver wider benefits to those in disadvantaged communities who are without access to assets.

DECC is taking a narrow approach at a macro level, rather than looking toward the potential of micro approaches that can achieve a macro effect for the market as a whole. The Department for Energy and Climate Change, the Department for Communities and Local Government (DCLG) and the Cabinet Office should recognise the extent to which community energy generation can, not only deliver further social value, but also contribute to the attainment of wider targets and agendas for use of renewables, reductions in fuel poverty and national market reform. Widening focus from the local to national social, environmental and economic value will begin to lever in communities that will transform the energy market.

The community rights opened up by the Localism Act 2011 offer a number of opportunities for community energy projects to attract further finance and assets that will enable them to thrive. Neighbourhood forums or parish and town councils should be encouraged to work with their local authorities to draw up resident-led plans for low carbon communities, setting a framework within the local planning system to promote and enable new community energy projects. The effective use and co-ordination of the community rights in not just forming, but in delivering on the local low carbon plan, should be profiled for the benefit of other neighbourhoods.

Similarly, community budgeting pilots should offer local authorities the chance to develop low carbon neighbourhoods and public services. It is vital that such budgets are managed through a genuine community planning approach to ensure local people are able to input suggestions and exchange ideas for rethinking and refitting local services at the earliest possible stage. For example, communities might specify that a proportion of their city's or local authority's energy budget be spent on incubating new local renewable energy suppliers. Neighbourhood planning frontrunners and community budget pilots should be representative of both under-developed and affluent communities, and rural and urban areas.

The Localism Act will also enable communities to list assets that are of particular local value in order to bid for ownership when they come up for sale. Through neighbourhood planning, communities should be granted the opportunity to highlight underused land, space and assets that could be of use to the delivery of further community energy projects. This may begin to open up important opportunities for the formation of local partnerships and new innovative models for generation, such as the community-owned solar PV panels that now occupy the roof of Harvey's Brewery. Such space and assets could also act as a 'testing ground' for more ambitious projects that may later gain traction and financial and local support.<sup>26</sup>

On a national scale, rather than simply favouring individuals and large businesses, Government should seek to 'nudge' community and group action to invest in innovative start-ups that communities can own and run. The Treasury, for instance, could help to facilitate new community energy schemes and partnership models through removing what the Government already admits are 'gaps and inconsistencies' in the way tax reliefs incentivise, or inhibit, community finance.<sup>27</sup> Government should extend the Community Investment Tax Relief scheme (CITR), which could become more effective for a variety of socially important schemes, including the promotion of direct investment in community-owned energy and the inclusion of new hybrid models. Changes to the Venture Capital Trust (VCT), Enterprise Investment

<sup>26</sup> POPse! have forwarded a similar recommendation for the use of environmental assets, calling upon Defra and environmental asset holders to promote access to underutilised environmental assets for community use. POPse! (2011). Bursting Policy Bubbles [online] <http://popse.files.wordpress.com/2011/09/popse.pdf> (Accessed 23 January 2012) p. 34.

<sup>27</sup> NCVO (2012). NCVO Commission sets out steps for growing the social investment market [online] <http://www.ncvo-vol.org.uk/news/civil-society/ncvo-commission-sets-out-steps-growing-social-investment-market> (Accessed 24 January 2012).

Scheme and the new Seed Enterprise Investment Scheme should also ensure that these incentives do not discriminate against equity and equity-like investment of risk capital in community-led energy schemes.

#### 4.2. Local Trust Economies: From the Micro to the Macro

Proposals for national energy market reform are in danger of undervaluing the potential of building local community-led partnerships for opening up production and in reducing and matching demand. The current fledgling status of a renewable energy market with enormous economic potential is not yet afforded the certainty and predictability which can achieve scalability and trust within communities themselves. Given the difficulties faced by communities in planning approval, attracting seed capital and in finding further financial investment and co-ordinated support, it is these partnerships which will be key to stimulating the market and acting as a catalyst for its impact at a local and national level.

Local authorities themselves should recognise the contribution of community energy projects and their partners for local growth and the development of local infrastructure. Forthcoming changes to local government finance will mean that local authorities may retain a share of uplifts in local business rate income. This could be used for investment into the emerging 'community energy infrastructure', which in the long-term could be part of a mutually beneficial programme for economic development, job creation and the potential for land value capture and good financial returns.

Local authorities should also work with communities to discern how a mixture of incentives for local businesses and incoming developers could be established in order to encourage such partnerships to take place. In anticipation of more extensive production models and delivery networks, communities should, for example, be enabled to extend the premise behind the 'Merton Rule' which obliges developers to ensure new developments generate at least 10% of their energy from on-site renewable sources.<sup>28</sup> Instead, communities should be allowed to make use of new local powers to encourage established businesses to receive a certain portion of energy supply from local community production.

Extending local authorities' involvement beyond financial investment alone, incentives to encourage such demand could be sought by using the new freedom granted to local authorities through the Local Government Resource Review over local business rates, where businesses could be offered rate relief or discounts in return for buying energy from community-owned and-run suppliers. Local authority procurement can be used as a vehicle to support community renewables, building on the work in Manchester by the Centre for Local Economic Strategies.<sup>29</sup>

Private developers and suppliers, local authorities, businesses and housing associations are also well placed as guarantors and capacity builders within the UK's emerging community energy market, and should be recognised and positioned as such in the national and local policy framework. With the resources, assets and position of such partners, new models of social and economic organisation can come together and grow in capacity and legitimacy over time.

Through commissioning authorities, communities should be given greater opportunities to engage and become involved with commercially-led projects that have the resources to platform community energy projects and take them to scale. Whether as local authorities or neighbourhood forums, commissioning authorities should explore 'market-making' opportunities by seeking out and establishing new partnerships in their locality. If a commercial developer establishes a corporate structure for a new development, for instance, communities should be encouraged to allocate a certain percentage of ownership of that company to the local community via a share or bond offering, as with the case of Fintry and Falck Renewables.

<sup>28</sup> Merton Council (2012). What is the Merton Rule? [online] [http://www.merton.gov.uk/environment/planning/planningpolicy/mertonrule/what\\_is\\_the\\_merton\\_rule.htm](http://www.merton.gov.uk/environment/planning/planningpolicy/mertonrule/what_is_the_merton_rule.htm) (Accessed 23 January 2012).

<sup>29</sup> Jackson, M. (2010). The Power of Procurement. Manchester: Centre for Local Economic Strategies

Based on the ambition of West Oxfordshire's Low Carbon Hub, communities should also be granted the right or entitlement to own their local distribution grids. At the moment, tenders only extend so far as private companies, developers and local authorities. A clear legal structure would have to be established, which could be followed by a community share issue in order to attract capital from local residents, but also from businesses and those outside of the locality who would be willing to support. The community-based and owned vehicle would have the power to choose their commercial partner, and contractually agree the terms of engagement.

Such partnerships should be encouraged through the exploration and creation of new company models that would allow for both community and private sector returns, and therefore aid in taking the local community energy projects to a sustainable level. Whilst at one end there exist legal models that allow for 100% community ownership (for example, co-operatives), at another we are presented with only 100% commercially-owned sites (a limited company). There is an opportunity to here introduce a different structure that is a hybrid of the two, such as a Low-Profit Limited Liability Company (L3C) that exists in the US, accompanied by a tax incentive for the community-owned portion designed to not only 'nudge' group and social activity, but enable crucial partnerships for future sustainability and local growth. Whilst there is an opportunity to weave this in to wider energy market reform, it should also be taken into consideration by the Treasury and the upcoming consolidated Co-operatives Bill.

## 5 Conclusion

There are unprecedented opportunities open to Government, local authorities, communities, businesses, energy suppliers and industry players, not only to develop community-owned and -led energy projects, but to also draw them to the forefront of market reform. While DECC has committed resources to its 'community energy' and decentralisation programme via grants, loans and resource investment, these are currently neither central to the department's overall strategy nor afforded joined-up focus across government.

In order for people to move beyond the status of passive consumers with no connection or control over demand and supply, renewable energy must be recognised as a vital asset which communities can harness for local benefit and social outcome; the rewards of which contribute to the social and economic fabric nationwide.

Active participants and producers require opportunities to explore joint ventures and partnerships with those within their locality and beyond, whilst retaining ownership of the projects for local and community benefit. Therefore DECC, in collaboration with DCLG, the Cabinet Office, and the Treasury, should encourage communities to be active generators and market-makers, and enable them to form partnerships through support structures, sophisticated business models and localised financing mechanisms. For initiatives like the case studies discussed in this paper to become mainstream and form a significant part of a diversified national energy economy, group and community projects must be incentivised to pursue new models of social and economic organisation.

This 'macro effect' can only be achieved by moving away from the current emphases on individual choice and consolidated supply. Change is needed in both national and local policies and in industry practice, which must not only address the symptoms of a poorly functioning market, but lay the foundations for a wholly different approach to energy markets. Beyond regulation alone, this transformation can only be accomplished alongside the bottom-up diversification of producers and suppliers.

# 6 Recommendations

- **Government will not achieve energy market transformation without the active support of communities. The Government's approach to promoting 'community energy' must not be seen to end in the provision of subsidies and grants, but extend to ensuring that communities of all types are part of wider energy policy formation. Similar opportunities must be explored in the upcoming reform of the UK's electricity market.**
- **DECC should recognise the need for a co-ordinated support programme for community energy, which would have implications for trust and predictability within communities. This could build upon existing coalitions, such as the Low Carbon Communities Network, or the recently established 'Community Energy Coalition' spearheaded by The Co-operative Group, Forum for the Future and others.**
- **DECC, the Cabinet Office and the Treasury should conduct a cross-departmental review to examine the potential for community energy projects to significantly contribute toward achieving national renewable targets, reductions in fuel poverty and local and national energy market reform. Recommendations should follow on how communities could be brokered in to national energy policy development, and further incentivised to own and produce their own energy.**
- **Communities should be enabled to move beyond the environmental and social benefits of local energy production. In enabling self-supporting networks of local individuals, businesses and social enterprises to cluster and innovate, economic opportunities follow for extended community energy ownership and delivery. As these opportunities scale up and become mutually enforcing, communities should have the right or entitlement to own their own local grid. Through upcoming reforms to the electricity market, communities should be entitled to bid for the ownership of their local grid by contractually partnering with energy suppliers.**
- **Through forthcoming changes to local government finance, local authorities may retain a share of uplifts in local business rate income which could in turn be used for community investment. Local authorities should seize such opportunities by looking into how they might be able to support and incentivise communities to invest in community energy infrastructure.**
- **DECC and DCLG should work together to produce guidance on how the new 'rights' within the Localism Act 2011 could be used to support community energy.**
- **Local authorities should work with communities, local asset holders and the energy industry (private developers and suppliers) to highlight underused assets and space that could be utilised for community energy projects. The Localism Act 2011 will enable communities to highlight assets that are of particular local value in order to bid for ownership when they come up for sale – local authorities should also co-operate with communities, through neighbourhood planning, to form a list of assets that could be made available for community use.**

- **DECC should work with DCLG to develop models of co-operation between local authorities and community energy projects, businesses, developers and private suppliers by using tools such as neighbourhood planning and community and area based budgets. Commissioning authorities – whether local authorities or neighbourhood forums – should explore ‘market making’ opportunities, putting together incentives and obligations on larger businesses and new developer entrants into the community to receive a certain portion of their energy supply from community production.**
- **New company models for co-operative and private sector partnerships should also be explored – legal models which, in facilitating both community and private sector returns, would help take community energy projects to a sustainable level. A new hybrid company structure should be taken into consideration by the Treasury and in the upcoming consolidated Co-operatives Bill.**
- **The Treasury should extend the Community Investment Tax Relief for a variety of socially important schemes, including the promotion of direct investment in community energy. Changes to the Venture Capital Trust (VCT), Enterprise Investment Scheme and the new Seed Enterprise Investment Scheme should ensure that these incentives do not discriminate against equity and equity-like investment of risk capital in community-led energy schemes.**



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## New Economies, Innovative Markets

This publication is an output of ResPublica's *New Economies, Innovative Markets* workstream, one of the three core workstreams of the ResPublica Trust.

This workstream explores the structures and processes which shape and define day-to-day economic life. From the local to the national scale, we will examine how communities can best access the macro advantages that globalisation brings. Encouraging new market entry, ensuring supply chain resilience through more localised control, promoting greater diversity of business models and wider asset distribution are all prerequisite to building a more stable and healthy economy that is grounded in human and social relationships.

Models of the past have led to unbalanced economic growth and barriers to market entry and competition. Our work within this workstream therefore seeks to provide practical policy solutions for a moral capitalism which transforms the terms of economic and social wealth. Our objectives in 2012 include re-defining economic competition, diversifying the market for SMEs and social enterprise, innovating solutions to enterprise and infrastructure financing, and exploring the benefits of business clusters and localised growth, in order to achieve an economy based on trust and reciprocity.



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