

Community Energy Strategy: DECC consultation

- Alan Simpson

Preamble.

DECC's call for evidence on community energy is timely, in that it may help the government avoid turning a key element of tomorrow's energy markets into a lamentable token gesture.

Internationally, **the next decade will see a dramatic growth in decentralised generation**. Technologies that enhance the ability to coordinate, manage and store locally generated energy, will accelerate moves towards localised generation, distribution and grid management. Community-owned renewable energy will be a key part of this, delivering the social endorsement (and engagement) that has so far eluded UK energy policy making.

Most of the questions put forward in DECC's consultation document are peripheral to the central issues to be addressed. The growth of community energy cooperatives elsewhere in Europe answers most of DECC's questions about the potential scale of community energy generation in the UK. **Some 20% of UK renewable energy generation could come from community-owned renewable generation by 2020**. But this is a big leap from the 1% of generation it delivers at the moment.

The real questions are about why UK progress has been so limited to date, what obstacles are being put in the way of community energy cooperatives, and how can these best be removed? The limited growth of the sector has little to do with the absence of 'peer mentoring' schemes or the 'capacity' of existing cooperatives. It has everything to do with institutional obstacles and energy market complexities in the UK.

For DECC to make any meaningful progress it has to focus on 2 key elements in its own policy making domain -

- i) **community ownership, rather than community *benefit*** and
- ii) **the fiscal/administrative measures needed to unlock UK potential for community renewable energy generation.**

This paper builds on a Select Committee submission I made in April 2013, and on evidence drawn from a recent tour of Germany, looking at the progress of their own energy transformation programme.

1) Summary Recommendations

There are 8 key elements required to promote a dynamic, UK community energy sector -

- 1) **Priority access to the Grid** (guaranteed by law, for all renewably generated energy)
- 2) **The reversal of market mechanisms currently inhibiting community-owned generation**
- 3) A **'community right of first use'** (at wholesale rather than retail prices) of the energy generated
- 4) A **planning framework, able to determine (locally) the degree of community ownership** required as a precondition of permitted development
- 5) A **local area/local authority duty to meet its share of national renewable energy/carbon reduction targets**
- 6) **A right to acquire/own local distribution networks** and to sell non-consumption (demand reduction) measures alongside demand management and renewable energy,
- 7) **De-risking:** a strategic approach that delivers supported finance to the community energy sector, and
- 8) Effective measures to **include the poor in community-owned energy generation;** ie a coherent approach to 'debt' as well as 'equity' based financing.

2) Overview

2.1) It is hard to believe that one of the few visionary commitments, set in stone in the Coalition Agreement, could have been reduced to near emptiness before this parliament was half-way through. The undertaking could not have been clearer. The Coalition government pledged it would -

“encourage community-owned renewable energy schemes where local people benefit from the power produced”.

2.2) Instead, almost the opposite has happened. Britain has barely 50 viable community energy cooperatives. Germany has over 600. There is a thriving and expanding community energy sector. Ours struggles to survive. In a recent talk given in the House of Commons, Rainer Baacke, former permanent secretary in the German Environment Ministry, commented that Britain's slow progress into the era of renewable energy had more to do with the lack of a clear vision than anything else. This is why DECC has struggled to come up with a meaningful framework for promoting community energy.

2.3) Work recently undertaken by *Carbon Leapfrog* allows the current figures for UK installed community energy generating capacity to speak for themselves -

- i. Under the **FITs** programme, the July 2013 installation figures were -
 - Total renewable installations (379,530) ... ~ 400k
 - Total Installed capacity (1,792.46 MW) ... ~ 2 GW
 - Proportion that is community owned ... ~ 1 %

- ii. Under the **ROCs** scheme:
 - Total capacity of renewables (12,500MW) ... ~12.5 GW
 - Portion that is community owned (160 MW) ... **1.28%**

- iii. Under the **RHI** scheme:
 - Total number of renewable installations in UK: 1763
 - Total Installed capacity: 409.241 MW ... 0.4 GW
 - Community owned ... **1%**

2.4) Aggregating the figures, the UK currently has -

- Total installed renewable energy capacity (14,884,551 MW) ... approx **15GW**
- Total installed capacity for community energy ... **180 MW**
- Community energy capacity as percentage of all renewable energy **1%**

2.5) Renewable energy constitutes 12.8% of UK existing installed capacity (as of Q1 2013). It is a picture of a community energy sector surviving despite government policy rather than because of it.

2.6) What the Government needs to grasp is that a dynamic community energy sector cannot emerge without disrupting the cosy relationship between DECC and the big energy companies; a relationship that at times reduces DECC to little more than a take-away pizza service, delivering enduring public subsidies to a closed energy cartel.

2.7) Community-owned, renewable energy initiatives have the power to turn today's energy cartel into an energy democracy; with a diminishing reliance on public funding alongside a stronger focus on consuming less rather than producing more.

3. The current obstacles

3.1) Comparisons between the UK and either Germany, Denmark or parts of the USA, reveal a fundamentally different set of priorities that define the legal, regulatory and social contexts in which community energy is being developed. In Denmark and Germany, community energy is central to their transformation of the energy market, and to the wider public engagement with energy security and climate change issues. Such engagement also brings in some €30bn of annual household/community investment in German renewable energy schemes.

3.2) **Finance.** Germany is an exemplar of how to do things simply, quickly and well -

- i) The KfW Bank underwrites loan finance, via commercial banks, making long term funding available at 1.0% interest
- ii) KfW trains the commercial banks to use the (3 page) Application Form it has drawn up for project finance. This is a standard product that KfW encourages banks to use

- iii) For projects that already have authorisation (or do not require it), it is expected that financial approval can be completed in a single session in the bank, and
- iv) Community schemes do not have to meet an 'energy performance standard' for properties involved as a precondition of FITs eligibility. (There is a separate scheme of long term loans - at 1.0% - and grants/rebates that address the national energy efficiency programme.)

b) For the UK to adopt a similar approach, DECC would need to -

- i) **Scrap the aggregated FITs tariff reduction on community-owned solar schemes,**
- ii) **Confirm that EIS eligibility will apply to all such schemes,**
- iii) **Produce a mechanism that delivers long term, low interest finance for community-owned energy schemes, and**
- iv) **Reconfigure its approach to delivering the Green Deal**

c) By limiting such measures to the community-owned sector, this would honour the promise made in the Coalition Agreement, removing some of the pressures that leave communities hostage to the predatory interests of developers.

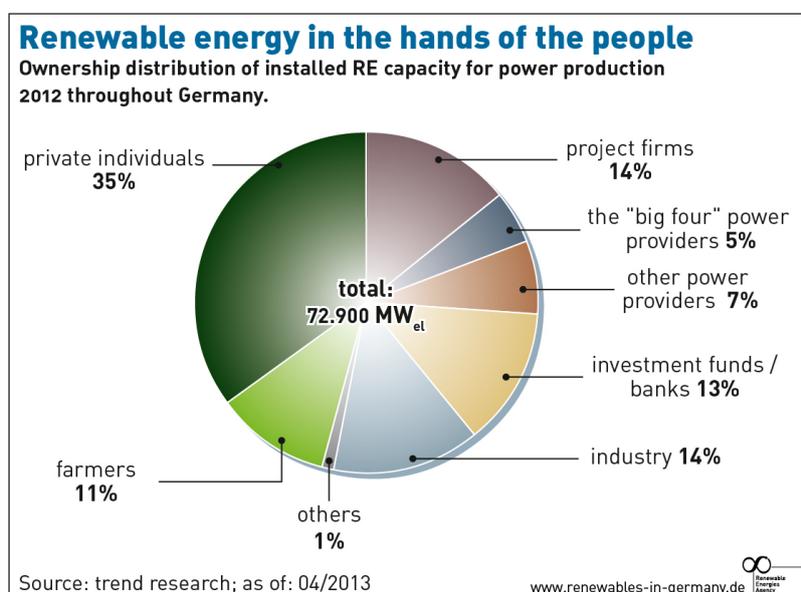
3.2) **Planning processes.** In Denmark, the Netherlands and Germany, applications for community renewable energy generation are often processed within a 3 month period. The reasons behind this are that the ground rules are clearer, (varying) levels of community ownership are built in as preconditions, and direct community benefits (lower energy costs) come as part of the total package. In Germany, local authorities also gain from a slice of the tax revenues from businesses setting up in their areas.

3.3) In Denmark, local authorities have to identify suitable sites from which they will be able to meet their share of nationally defined, renewable energy/carbon reduction targets. Community ownership of land-based wind turbines has been a strong element in their successful deployment. Recent opposition to larger turbines, with lower degrees of community ownership, only emphasises the extent to which 'community ownership' is the key to the acceptability (or not) of such proposals.

3.4) In the UK, land-based wind turbine proposals have become costly, protracted and contentious. To a large extent, this is down to a weakened planning framework that easily polarises the debate between 'predators' and 'NIMBYs'. It is a debate guaranteed to produce a logjam. Without the right to own the scheme, or have first use of the energy they generate, communities invariably get drawn into fending off 'land grabs' rather than becoming providers of their own energy security. **'At a stroke', the debate changes as soon as community ownership becomes a precondition of development.**

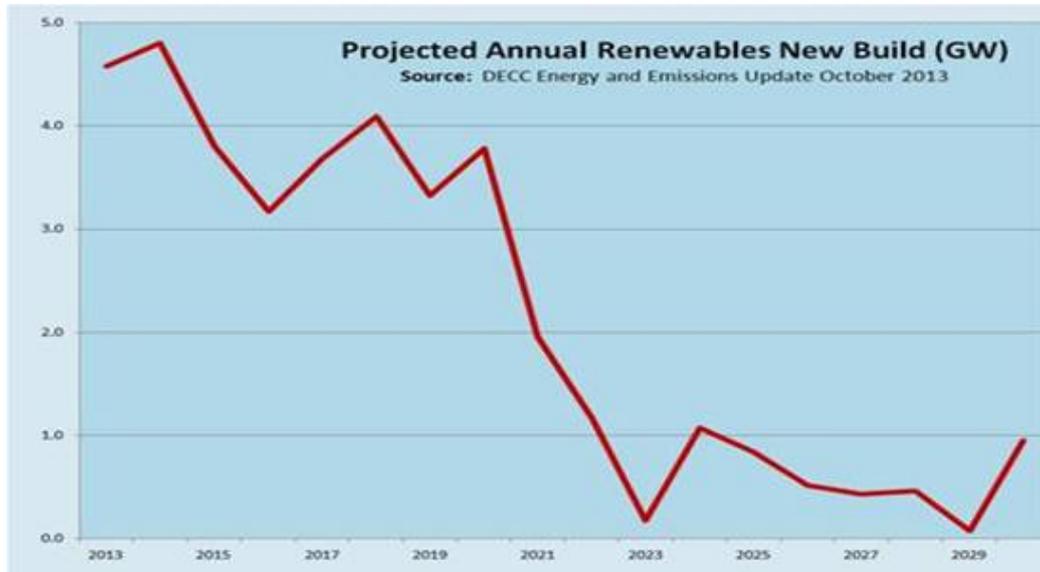
4. Ambition and finance

4.1) Only 5% of Germany's 73GW of installed renewable energy is owned by energy companies. The rest is owned by households, communities, development trusts and farmers. This comes directly out of their use of Feed-in-Tariffs (FITs) as the way of financing the process. Energy companies challenged this as a breach of State Aid rules, but the European Court ruled the challenge invalid. Their FITs mechanism does not count against public expenditure levels.



4.2) The use of this approach has allowed deployment at scale, rapidly falling technology costs (particularly for solar, whose unit electricity costs have fallen by 50% in 2 years) and delivered huge boosts to innovation, employment and growth.

4.3) The UK has turned its renewable energy programme into fixed-budget, low-ambition programmes that will deliver very little. DECC's own projections make this clear -



4.4) **The depression rates of tariffs currently paid to renewable energy sources, are determined largely in relation to a Treasury fixed-budget, rather than promoting dynamic growth.** Such an approach is not taken to the way the government meets the costs of nuclear waste disposal, the proposed Capacity Mechanism, or the control of 'new investment instruments' set out in the Energy Bill. Nor is it consistent with deployment at a scale that drives down peak demand (and peak prices) within the energy sector. It is an arrangement that accrues to the public all the costs, but few of the benefits enjoyed elsewhere in Europe.

4.5) The effect of this approach, along with the additional reduction in tariff rates in 'aggregated' schemes, has been to pull the rug from under the growth of UK community energy cooperatives. The major banks committed to promoting community-owned renewable energy - the Co-op and Triodos - have put most of their new schemes on hold. The finances no longer stack up. Most existing community co-ops now struggle to make ends meet.

4.6) DECC's projections (above) make no allowance for any contribution that community-owned renewable energy might make in tomorrow's energy market. But if DECC's 'falling off a cliff' deployment curve is held to, community renewable energy generation will displace household deployment rather than add to it. It is the Treasury mindset that makes this a zero-sum game. Robbing Peter to pay Paul is an embarrassment not a strategy. **The FITs framework for community-owned renewable energy generation needs to be a self-financing mechanism within the energy sector accounts, not a fixed budget scheme controlled by the Treasury.**

4.7) Moreover, **there is no UK equivalent of the role assigned to the KfW bank in Germany, which regularly buys up half of the 'risk' element in community energy schemes, and lends them money at 1% interest. This is a role that could be assigned to the Green Investment Bank, but hasn't been.**

4.8) The UK lacks any central financial unit to underwrite community-owned renewable energy schemes and any co-ordinated approach to integrated delivery mechanisms. By regulation and by legislation, Germany and Denmark have ensured that their energy market is open to a larger number of players, and where 'community ownership' brings a tangible advantage rather than a set of headaches. The UK is without any such integrated strategy.

4.9) This seems particularly perverse, since experience across the EU suggests that **communities will save/invest, in their own schemes, at half the interest rate (5.0-6.0%) that commercial developers and energy companies normally seek.**

5) The question of scale.

5.1) When FITs were introduced, in the Energy Act 2008, the initial 5MW threshold was a compromise between an ambitious Secretary of State and a reluctant Department. It was not budget constrained, and was only ever seen as a starting point. At the time, all the Opposition parties denounced its lack of ambition, and wanted at least 10MW as the starting threshold.

5.2) The current tariff structure is designed largely to deter larger scale thinking, and to confine installations (particularly solar) to within the 50kW ceiling that the major power companies had originally lobbied for. DECC had also constructed its own mythology that community energy schemes do not exceed 5MW, so any lifting of the threshold was unnecessary. The proposed lifting of this threshold to 10MW loosens the thinking, but without removing the 'fixed budget' constraint.

5.3) Even in the UK, Uist now has a 6.9MW wind turbine scheme in Scotland; the Westmill Solar Cooperative, in Oxfordshire, will produce enough electricity from its 5MW scheme to power 1,400 homes; and Wymeswold (Leics) has just completed a 34MW installation of 130,000 panels. Local authorities in the UK - including Stoke on Trent, Peterborough, Sheffield, Nottingham, Bristol, the Isle of Wight, and a number of London boroughs have all been looking at ways of extending their local (renewable) energy generation, at levels way beyond the 5MW threshold. **This is the norm in other parts of Europe, and should be so in the UK.**

5.4) DECC should also note that the Middelgrunden co-operative in Denmark operates 50MW of renewable energy generation.

5.5) In Germany, cities such as Munich, Frankfurt and Berlin aim to obtain 100% of their electricity from renewable sources by 2025. This follows on from similar initiatives in smaller towns and villages such as Freiburg, Schonau and Feldheim.

5.6) **The point that Europe seems to grasp, and the UK doesn't, is that community ownership (and community 'first use' of the energy generated) are central to both a culture change (and market change) in which communities take increasing responsibility for their own energy security and carbon emissions.** This is the way in which the UK can most easily change the debate about the deployment of different renewable energy technologies and open up a genuine growth sector in tomorrow's (sustainable) economics.

6) Community ownership and the 'right to first use'.

6.1) Community wind turbines offer the best example of why 'ownership' and 'right to first use' have to be linked together in the community energy strategy. Ownership will become increasingly central to the social acceptability of schemes, but owning without benefiting (unless you are a shareholder) will not take you much further. A direct connection between community energy generation and reduced energy costs changes the whole energy debate.

6.2) UK energy politics has been happy to confuse the notions of ownership and benefit. Community 'benefit' has rarely gone beyond the 'bag of sweets' mentality. This has seen power companies (politicians and developers) offering token payments to a local area as part of planning/building agreements. **'Community benefits' rarely goes beyond the buying of consent.** What it does not do is change the nature of the energy market, turn communities into providers as well as consumers, or deliver direct benefits to people in the form of reduced energy costs.

6.3) An easy point of comparison is with the ownership of wind turbines in Denmark or, in Germany, with village of Feldheim just outside Berlin. Villagers have the right to buy the electricity from the wind turbines at the edge of the village, and at wholesale rather than retail prices. Electricity prices in Feldheim are €0.13 cents/kWh. In Berlin, just 20km away, electricity prices are €0.23 cents/kWh.

6.4) The UK is currently considering a similar proposal from the Mayor of London, for a 'London-Lite' scheme in which energy generated within the Capital can be sold to London residents, at discounted prices. This is the first move to bring the UK into line with decentralised generation provisions that are already commonplace in the USA as well as in Europe.

7. Tomorrow's thinking: "It's the network, stupid."

7.1) The London-Lite proposals take the community energy debate into the space that tomorrow's energy systems will revolve around. Telecommunications companies, rather than power station providers, will become the partners of choice in the development of smarter, more interactive, energy management systems. Communities will become centre-stage in this discourse.

7.2) Having 'the right of first use' to locally generated energy is the first step in a much more exciting direction. Communities then move easily into discussions about energy management and demand reduction. What begins as a right to supply yourselves with lower cost energy, seamlessly moves into measures that reduce or avoid overall consumption.

7.3) Some 40% of rural energy cooperatives in the USA have demand management agreements, allowing for reduction in voltage in defined circumstances. Other areas are exploring the inclusion of energy efficiency measures as (cheaper) alternatives to new generation. This may have obvious attractions to households and communities interested in reducing their energy bills, but it is anathema to energy companies dependant on selling increased consumption to support expansion/dividend strategies.

7.4) In the debate about cost avoidance, DECC needs to consider the question of **grid access and balancing charges** facing community renewable energy. DECC is currently looking at the apportionment of grid balancing charges and renewable/community energy. It is the sort of stupid discussion that could only take place in the UK. Elsewhere in Europe, countries have applied the EU's Renewable Energy Directive to guarantee **priority grid access to renewables**, within which **the entirety of balancing responsibilities become the responsibility of non-renewable energy sources**. The UK must do the same.

7.5) There is, however, a question of **initial grid access and connection charges**. Existing power stations benefit from the 'dowry' of the national grid, which was constructed largely on the basis of public taxation (and as a 'strategic asset' in the UK energy system). Unlike commercial developments, community-owned renewable energy is a resource designed to strengthen local resilience far more than enhanced profit/dividend levels. **Parliament should give a lead in defining the grid access and distribution charges that community-owned renewable energy schemes should be exempt from, if this is to become a strategic part of Britain's energy future.**

7.6) The UK may not be able to immediately go down the path of decentralised ownership of distribution networks. European towns and cities currently doing so already have a right to buy back the local grid and/or regulate the terms on which it operates. In September 2013, both Berlin and Hamburg will be holding 'citizens referenda' on taking their Grid systems into social ownership. The outcome of the referenda are less important than the fact that citizens see themselves as having the right to be key decision makers in the energy security debate about the balance between local generation, demand reduction, storage and distribution.

7.7) Tying local generation into local distribution maximises the benefits of community energy generation. It also moves community energy to the centre of the energy debate, rather than as an element confined to its margins.

7.8) As a first step, **the UK should introduce the legal right of localities to set performance standards (including demand reduction, carbon reduction and renewable generation) on existing DNOs**. These should include measures to give priority access to community generated renewable energy. If the 'London-Lite' model offers an easy access route into this, it should be extended to all localities across the UK.

8. The meaning of 'community ownership'.

8.1) DECC ought not to get tied up in precise definitions of 'community'. It may be helpful, however, to acknowledge that there are at least 3 variations that currently have an active place in the UK 'community-ownership' debate -

- **'share issue' based co-ops** (especially where there is an upper -10%- limit on shareholding, to prevent predatory takeovers),
- **'community interest' co-ops**, such as the National Trust or 10-10's solar schools programme, where benefits are shared between members and the communities they serve, and
- **'locality based' co-ops**, where ownership is restricted to those living within a specific geographical boundary.

8.2) One evolving dimension of the community ownership sector needs at least to be acknowledged in the current discussions. The role of *Abundance*, and other approaches to 'crowd funding' of renewable energy initiatives must not be overlooked. They make it possible for small savers to join alongside larger ones in offering debt based funding for community schemes. The links to community accountability may not yet be fully defined, but their role should not be overlooked in the game changing process; particularly since they go back to the roots of financing for most of the UK's original (Municipal) energy companies.

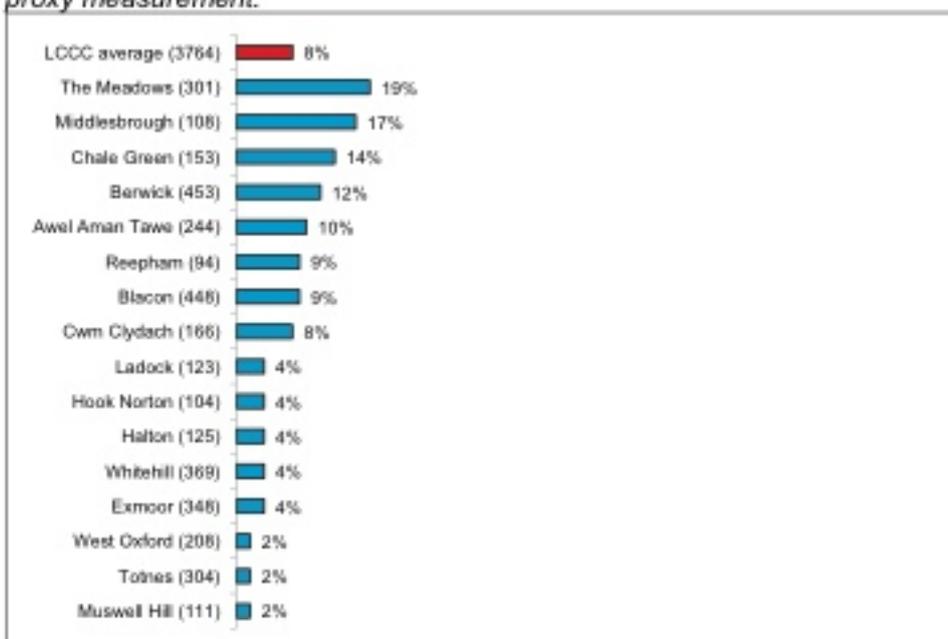
8.3) The unifying interest that would link both savers/investors and energy consumers in all the various 'community energy co-op' categories is the right of 'community first use' of the energy generated.

8.4) At an international level, the ability to connect community-owned renewable energy generation to a direct reduction in household energy bills, will become part of the Holy Grail of national energy debates.

9. Including the Poor.

9.1) The DECC interim report on the Low Carbon Communities Challenge (July, 2011) provides a really good starting point (and example) of dilemmas about how to involve the poor in community-owned energy. The chart (below) ranked communities involved in the original LCCC pilot schemes, based on the numbers in fuel poverty in the respective areas.

Figure 1: Estimated % in fuel poverty (i.e. spending more than 10% of their income on fuel bills) through proxy measurement.



9.2) The Meadows (Nottingham) and Middlesbrough were the most classically urban and inner city of the pilot schemes. In the case of the Meadows, the community had spent some 18 months working out how to set up a community energy company that the poor did not have to buy their way into. MOZES - the Meadows O-Zone Energy Services company - was the vehicle designed to do so. People who live in the Meadows are joint owners of MOZES because of where they live, not what they can invest.

9.3) As the chart makes clear, with almost 20% of Meadows households live in fuel poverty, it was the most effective pilot to incorporate the fuel poor. The DECC grant was to give the community a launch point from which to grow their plans to turn the whole estate into a 'near-zero carbon energy' zone. FITs payments, from the original 55 houses, 3 schools and 1 community building that had solar roofs installed, were to be the security against which other finance could be raised to extend the reach of the community energy company.

9.4) What should have been a triumph for inclusive politics, soon turned into a battle for survival. MOZES continues to exist despite government policy rather than because of it -

- a) DECC ruled that the pilot scheme finance counted as State Aid and that the community could not receive FITs payments from the installed roofs,
- b) British Gas, to whom all of the DECC money was paid for installations, lost interest in being a community partner once it realised that MOZES was unwilling to allow British Gas to own the installed roofs,
- c) MOZES is now left with £1,500 annual insurance and maintenance costs, but no income stream to set them off against, and
- d) A community initiative that ought to have given the poor a platform from which to be part of the community energy revolution, finds itself collecting the bills but none of the benefits.

9.5) Moreover, MOZES had to abandon plans to extend their work using debt-finance from the Co-op Bank (because their assets lacked an income stream to secure a loan against) and have had to go down a more limited path, in conjunction with the local Credit Union.

9.6) The significance of this is that it raises important questions about *how does a community energy strategy include those without the resources to become shareholders?* The essential elements in any answer would seem to require some combination of the following -

- **DECC underwriting loan agreements to low income communities so as to de-risk the process**
- **Taking a more 'European' approach to support mechanisms for community co-ops that are not presumed to breach State Aid rules**
- **Creating a channel for low-interest loans to local authorities/social landlords (via the GIB?) which is made *conditional* on them forming community-owned ESCOs with the low income communities they serve**
- **Socialising the grid access charges to community energy co-ops**
- **DECC providing the same simplified (free) route-to-market that community co-ops in Germany can access, and/or**
- **DECC arranging standardised legal and insurance cover for communities preferring debt-based, community-ownership structures.**

9.8) None of this should be taken as a criticism of other cooperative ownership models of community energy generation. The European experience is of this unlocking huge amounts of domestic and commercial investment in renewable energy. The bonus is that, provided this is taken out of government budgets and treated as a free-standing element in energy sector accounting - in line with the European court ruling - no government subsidy is needed. The UK has to wake up to this wider European reality.

10. Communities that sell 'less' consumption: changing plans, changing partners.

10.1) DECC has to address the impact that a viable and dynamic community-owned energy sector would have on delivery of its carbon reduction strategies; most specifically the Green Deal.

10.2) One of the most powerful messages to come out of the German institutions is that tomorrow's energy markets will be based around different partnerships. For the UK, perhaps the hardest step will be in accepting that telecommunications companies and/or energy efficiency interests, rather than energy utilities, will form the core of tomorrow's 'smart' partnerships.

10.3) Historically, the UK has directed many of its initiatives (CERT, CESP and now ECO) through an internal levy on energy companies. Green Deal is being directed down the same route, with disastrous consequences. Germans could not understand why anyone would ask institutions dependant on selling

energy consumption to take a lead role in selling less? Their advice to the UK was 'look for different partners'.

10.4) Trying to protect Utility interests has lead DECC into absurd policy configurations. There was never a case for tying FITs payments for PV systems to the energy efficiency of properties. This was just to suppress demand for solar. Similarly, tying Green Deal to energy bills (and probably relying on energy companies to promote it) will self-discredit and under-deliver.

10.5) Comparison with the free-standing German model (section 3.2 above) is embarrassing. Long term, low interest loans (with up to 20% rebates for high energy efficiency improvements) have resulted in a programme upgrading 360,00 homes a year (1,000 per day!) and supporting 370,000 jobs.

10.6) German communities (and local authorities) are at the centre of this, as part of their climate change/demand reduction strategies. But the financing comes through the banks (and the KfW) - at 1% interest - not via energy companies (at 6-9%). **DECC must avoid saddling community-owned energy companies with duties to deliver the Green Deal.**

10.7) A simpler mechanism would be to **turn ECO into an energy company duty to buy the equivalent amount of long-term bonds from the Green Investment Bank, and allow the Bank to use this (and EU-ETS receipts) to finance a massive programme of housing renewal.** As (tradable) bonds this may not even count against public expenditure limits.

Energy Security

Community-owned energy companies will grow naturally into the debates about 'energy security'. They will become part of a new landscape of energy partnerships, delivering demand reduction, energy efficiency energy storage and management. These will evolve organically, not by diktat. DECC's responsibility is to open up the space in which this sector can grow as dynamically in the UK as it is already doing elsewhere.

The keys to this transformation are -

- **a genuinely open and transparent energy market,**
- **a prioritising of decentralised generation,**
- **access for energy co-ops to low cost finance (at least in the early stages), and**
- **an uncompromising adherence to the Coalition pledge that 'ownership' (not just 'benefits') will be in the hands of communities.**

In every community I visited in Germany, people saw themselves as drivers (not passengers) within the energy transformations taking place around them; as the source of solutions to today's energy problems, not just as victims. Communities across Britain can become the same drivers of change. But it involves a transfer of power, not just obligations.

This is what the Coalition promised. Now it is for DECC to deliver.

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August 2013

(Alan Simpson is the former MP for Nottingham South. He works as an independent advisor to Friends of the Earth (and others) on energy and climate issues, lives in his own eco-house, and is a member of the MOZES energy co-op in Nottingham.)

