

# Response to DECC call for evidence on community energy

## **Sustainable Community Energy Network Ltd. (SCENE)**

Contact Names: Jelte Harnmeijer / Matthew Parsons

Contact Details: [jelte.h@scenetwork.co.uk](mailto:jelte.h@scenetwork.co.uk) / [matthew.p@scenetwork.co.uk](mailto:matthew.p@scenetwork.co.uk)

SCENE Ltd.

The Edinburgh Centre for Carbon Innovation

15 South College Street

Edinburgh

EH8 9AA

Office: +44 (0)131 651 4556

## Call for Evidence Questions: What do we mean by 'Community Energy'?

We would like to hear your views about the definition of 'community energy projects'

Our key criteria for defining 'community', is the involvement of a place-based or interest-based social enterprise, together with evidence for both actual participation and collective benefits. In the case of non-charitable organisations, articles of association can reveal the presence of a motivation to generate collective benefits over and beyond company profit.

There are other indicators that would qualify a project for inclusion in the *SCENE Connect*<sup>1</sup> database. For instance, where the main business activity is based on an alternative economic activity, such as housing, charitable status is a prerequisite for inclusion. For-profit housing associations with independent charitable arms espousing a social/environmental mandate, for instance, are also included. We also include community councils in our definition of 'community', but not local authorities.

We would like to hear what evidence you have of the current and potential scale of community energy projects.

All data presented in this section was obtained through survey research performed by SCENE. The methodology used can be found on our website<sup>2</sup>, as can our current database of community projects<sup>1</sup>.

At the time of writing – mid June 2013 – we estimate that there is 58.9 MW of total operational community energy capacity in the UK. This is the summed capacity of 146 separate installations, 50 of which are located in England (21.6 MW) and 83 in Scotland (33.7 MW); Wales and Northern Ireland (NI) house 13 installations with a combined capacity of 3.7 MW. By way of comparison, Ofgem reports that the current capacity of community projects using Feed-in-Tariffs (FiTs) amounts to 26.5 MW – this is a significant under-report compared with our data, and likely stems from the absence of what we term 'Joint Ventures', projects using the RO scheme instead of FiT, and from projects that did not identify as 'community' on Ofgem's FiT database. There are eight different technologies represented, but the vast majority of community renewables capacity is made up from wind turbine and solar photovoltaic (Solar PV) installations: together, these constitute 91% of total capacity.

## Call for Evidence Questions: Potential benefits of community energy

How have community-led approaches delivered energy and climate change outcomes more cheaply or effectively than top-down Government action?

Rather than being thought of as separate things, top-down government action and community-led renewables development need to be integrated strategically, as the successful 'renewables economies' of Denmark and Germany clearly demonstrate. Successful renewables policy needs to take account of the positive externalities (benefits) that community (co-)owned generation can bring – benefits that cannot be delivered by the commercial or industrial sectors. In particular, community ownership of renewables generation:

<sup>1</sup> SCENE Connect. <http://connect.scenetwork.co.uk/>

<sup>2</sup> <http://scenetwork.co.uk/reports>

1. Leads to synergistic growth in the renewables sector at large, as communities (re-)invest a large proportion of renewables revenue into energy efficiency and further generation projects;
2. Leads to rapid adoption and diffusion of 'green' behaviour, and inculcates a culture that is receptive towards renewables, thereby reducing risk for renewables developers of all kinds.

In our considered view, it is unlikely the government will be able to meet its energy and climate change targets without making smarter use of these community-sector economic and cultural multipliers.

We would like to see policy and action from the national government that is not founded upon the reductionist approach of 'reducing cost', which in most cases really means 'reducing *direct upfront costs*'. As an example within the context of energy generation, this approach does not take into account (a) the risk associated with choosing a particular long-term generation technology, and (b) the externalised (indirect) costs associated with that technology.

- To address the shortcomings of (a), a recent study<sup>3</sup> recalculated the costs of electricity generation technologies, by taking into account the risk associated with actual historic data on market uncertainty and variability in fuel price supply and cost. The study found that the real costs per kWh of gas, coal and nuclear power were all at least 13% *higher* than wind power, and gas was 36% higher than wind.
- To account for (b), measures such as the Gross External Damages (GED) have been introduced, exemplified by studies such as those on pollution in the US<sup>4</sup>.

In summary, more effort should be made to highlight the direct social and indirect economic benefits of community cohesion and action on and around issues such as energy supply. It should be stressed that the value of these benefits *can* be measured and assessed in monetary terms – for an example of this, look to the US state of Maryland, where policy decisions are now based on the consideration not just of GDP value, but also GPI value<sup>5</sup>.

### How has participation in community energy projects changed attitudes to or increased engagement with energy and climate change issues?

Our research indicates that, in cases where communities have the choice of how to use community benefit, revenue is often re-invested into the renewables economy<sup>6</sup>. Almost two-thirds (62%) of communities invest or plan to invest generation revenue into the planning and construction of further energy generation or energy efficiency technology. Remarkably, this represents the single-most common use of renewables revenue, more common even than covering running costs of community activities (52% of respondents). Popular destinations for this investment are insulation and other efficiency measures, ground source heat pumps, and other - local and non-local - generation projects.

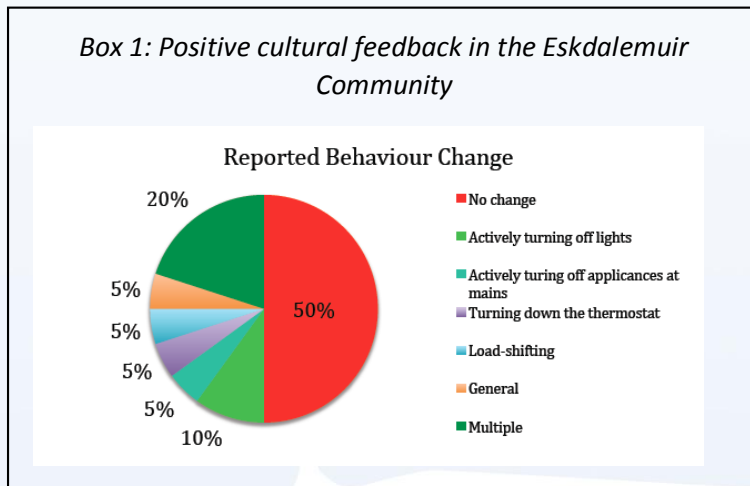
<sup>3</sup> European Wind Energy Association, 2009. The Economics of Wind Energy

<sup>4</sup> Muller et. al., 2011. Environmental Accounting for Pollution in the United States Economy, *American Economic Review* 101

<sup>5</sup> Genuine Progress Indicator (GPI). <http://www.green.maryland.gov/mdgpi/>

<sup>6</sup> Source: SCENE Connect (May 2013)

*Box 1: Positive cultural feedback in the Eskdalemuir Community*



There is mounting evidence that engagement in energy generation can induce demand reductions - our own case studies<sup>7</sup> support this (see Box 1). Furthermore, a recent meta-study<sup>8</sup> on achieving energy efficiency concluded that by far one of the most effective demand reduction strategies was using community-based initiatives. These generally reached carbon reduction levels of 15-20%, and proved resilient in the long term, with little or no rebound after two years – this compared to 5-10% for measures such

as smart meters and self-reporting. Community energy - through a powerful cultural feedback - drives just the kind of bottom-up demand-side reduction in energy usage that policy makers across the developed world have been striving for.

## Call for Evidence Questions: Unlocking the potential of community energy

What evidence or examples do you have of the barriers faced by community energy projects and the ways in which they have been overcome, or could be overcome?

Over the past two years, we have collected evidence of barriers faced by community renewables projects across the UK. They can be briefly summarised:

- Lack of trust between private-sector and community groups where there is 'Joint Venture Potential'
- Reliance on volunteers, especially those with financial, legal and technical skills
- Expensive, risky and slow planning procedures that are widely regarded as lacking in transparency and consistency, and vulnerable to influential minority interests
- Insufficient availability of finance and over-reliance on grants for planning phase; especially lack of sub-£1m debt-finance
- Systemic disincentives to early partnerships between local authorities and communities and/or developers
- Community benefit funds increasingly perceived as a 'bribe'
- Peripheral regions increasingly at grid saturation, plus good information about grid capacity is difficult to get
- Difficult for developers to sell-on projects that have a community stake
- Continued uncertainty around support mechanisms (FiT, FiT-CfD)
- Lack of best-practice guidelines on continued relationship between communities and developers

<sup>7</sup> Ashton Whitcomb, 2013. Poster Submission, Global Energy Systems conference 2013

<sup>8</sup> European Environment Agency, 2013. Achieving energy efficiency through behaviour change: what does it take?

#### Solutions:

- Experience in other European countries shows clearly that securing and safeguarding the opportunity to invest in renewable energy generation for local stakeholders is a crucial policy component, and a prerequisite to establishing a functional renewable economy. Future support mechanisms for medium-scale renewable energy generation should be simple, stable and sustained.
- Independent registries, such as <http://connect.scenetwork.co.uk>, should be supported to facilitate the exchange of engagement- and development best-practice.
- The sub-£1M debt-finance void should be addressed by enhancing market access to membership-based organisations (e.g., housing associations) and encouraging and facilitating low-cost prudential borrowing by local authorities for post-planning finance. In line with the Localism Act, local authorities should exercise their right to borrow and invest in renewable energy generation, at whatever level of capital is prudent, and in partnership with local communities where possible.
- Developers and generation companies should be encouraged to bring forward innovative benefit schemes, and formal provision for these should be introduced through planning policy and - guidelines, allowing such schemes to act as material considerations in planning decisions and fostering competition towards community-friendly development.
- Community projects should be supported at the planning and consenting stage through a combination of pooled financial support and bundled planning.
- In coordination with local authorities, community projects should be supported at the pre-planning stage through provision of access to wind and solar resource maps, geotechnical, planning and other environmental mapping resources.

#### How could it be made easier for community energy projects to sell the energy they generate and connect to the grid?

Allow DNOs to perform anticipative upgrades:

Capacity in those parts of the UK with some of the best wind resources, such as the Western Isles, South West England and Orkney, is largely saturated. In terms of connectivity, smaller projects struggle to obtain grid upgrades and extensions where larger-scale developers have a much better chance of doing so. Distribution Network Operators (DNO's) have little incentive to make technical information available, and even if they wanted to, are largely precluded from performing 'anticipative upgrades'.

Local businesses and user-groups should be encouraged to engage with or form ESCOs, utilising local generating capacity and through 'sleeving'. Developers and local authorities should act in concert to encourage this process of mutual benefit to generators and end-users. In addition, local authorities should be able to access advice to match up project proposals with potential borrowing opportunities, in order to make the most of local generating capacity potential and available financial discount rates. Local sources of finance, such as housing associations, building societies and credit unions should be considered as the highly appropriate for local authority borrowing for renewable energy schemes.