

# Energy and Climate Change Select Committee enquiry on Local Energy

## Joint submission by: Westmill Solar Cooperative and Westmill Windfarm Cooperative

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1. Westmill Solar Cooperative (WSC) and Westmill Windfarm Cooperative (WWC) own and operate renewable electricity generating stations of 5 and 6.5 MW respectively on adjoining sites in Oxfordshire. Both projects are successful examples of community owned generating stations. Both cooperatives have pledged a part of their income to charitable activities in support of sustainable energy related issues. WWC has helped to establish the charity Westmill Sustainable Energy Trust (WeSET) to which it provides regular funding; and WeSET has collaborated in this response.
2. Our cooperatives are delighted to see the Energy and Climate Change Committee reviewing the potential for local energy in the UK. We are pleased to submit our written evidence below, and would be happy to attend to provide additional verbal evidence, if it would assist your deliberations. Our response focuses in particular on issues relevant to community owned energy projects.
3. Before addressing the individual questions in your terms of reference we would like to highlight any few issues of particular importance.

### **Key issues for community energy**

#### **The benefits and difficulties of community energy**

4. Cooperative energy projects can offer huge benefits to the communities in which they are located. In particular they enable local people to become involved in their energy supply rather than it being imposed on them from outside by faceless corporations. This can lead to a much more enthusiastic response to planning applications, for example. There is some evidence to suggest that involvement in these community schemes extends individuals' interest in energy issues beyond the project itself, and can lead to increased awareness of energy saving and sustainability, for example.
5. Despite the many benefits, community energy projects are often harder to deliver than those by commercial companies. This is in particular due to the reliance on individual, usually unpaid, volunteers; and the lack of financial resources available to the cooperative at the inception of the project. We will address the implications of these difficulties in our specific responses below.

#### **Access to national support measures**

6. The support schemes for renewable energy generation are relatively ill suited to community projects of this type. We agree with the committee's assessment that the Renewables Obligation is too complex for this type of entity, although WWC does obtain part of its revenue under this scheme. We fear that the CfD's currently proposed under the Electricity Market

Reform will prove to be even more onerous. The Feed in Tariffs are arguably better suited, offering a comprehensible fixed price to the generator. However the recently introduced frequent and unpredictable degression arrangements make even this mechanism difficult, due to the relatively slow pace at which community energy projects are typically developed.

### **Barriers to local energy generation**

7. The two major barriers to local energy – grid connection and planning consent – apply both to community and commercial projects, and are discussed again in our specific responses below.

### **Response to questions in your terms of reference**

#### **What contribution could medium-sized energy projects (5-50MW) make to the UK's climate change, energy security and energy affordability objectives?**

8. In principle local energy projects should be able to make a similar contribution to the UK energy supply as they do in countries like Germany and Denmark. Our potential for renewable generation in particular, is at least as great as those, with a similar level of solar resource, and higher wind availability. A significant part of this contribution, of course, will be delivered by systems even smaller than 5 MW such as household rooftop solar arrays.
9. To illustrate the potential; at noon on 18<sup>th</sup> April – just a few days ago – over 50% of Germany's electricity was being delivered by renewable generation. Solar power delivered 30%, of which an estimated 10% is from arrays over 5 MW; with the bulk of the balance from even smaller scale rooftop systems. Wind power delivered 25%, of which the majority would have been from projects between 5 and 50 MW.
10. Self-evidently, energy security is improved by locally produced renewable rather than imported energy and also by dispersal of generation. Renewable energy projects are typically deployed faster than traditional power generating equipment.
11. The participation of individuals in their own energy generation is likely to deliver increased awareness of energy security, climate change and energy efficiency. The work of WeSET<sup>1</sup> has recently resulted in Watchfield parish council asking for support with the design, procurement and finance of solar PV panels on four community buildings and further insulation for the village hall extension. This effect is almost certainly attributable in part to the formal and informal outreach work by individuals who are energy co-op members in their local communities and in part by the 'community owned' profile of the energy generation plants within the parish. This work will be amplified and extended in the next four years within an economically supportive environment.
12. Community ownership also provides a portal for individuals to offer their skills for the benefit of the wider community and local low carbon initiatives that support the above aspirations.

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<sup>1</sup> which has (through volunteer efforts) hosted over 7,000 visitors to Westmill wind and solar farms in the last 4 years (half of all visitors through visits by local schools) as well as installing insulation in the village hall, delivering 'Sustainability Surgeries', and producing a wide range of educational resources

### **What different models of ownership exist for medium-sized energy projects and how prevalent are they in the UK?**

13. Our response deals with community owned projects which are still relatively rare in the UK but could be much more prevalent with the right business environment and are well suited to deliver medium scale projects.
14. Westmill Windfarm and Solar Cooperatives (WWC and WSC) are both Industrial Provident Societies managed democratically with each member having one vote irrespective of the size of their shareholding. The activities are overseen by an elected board of unpaid Non-executive Directors. Neither coop has full-time employees; operating responsibilities have been subcontracted to suitably qualified businesses.
15. WWC raised in 2006-7 a total of about £5.8 million from roughly 2,500 individual investors, with priority being given to people local to the installation. WSC raised in 2012 a total of approximately £6 million from about 1,650 investors, again giving priority to local residents.

### **What types of financing model are most suitable for small- and medium- scale projects? Do these differ from the financing models used for larger-scale projects?**

16. In addition to the members' equity described above, both projects are part financed by debt; provided in the case of WWC by the Cooperative Bank, and for WSC by Lancashire County Council Pension Fund, arranged through Investec.
17. In principle, the provision of non-equity funding is substantially the same as it would be for a commercial project, though community projects are typically 'one-off' so cannot usually benefit from a portfolio approach.
18. There are at present very few funders in the UK with experience of lending to cooperatives and community interest companies.

### **Why are community-owned energy projects more prevalent in countries like Germany and Denmark than they are in the UK?**

19. We see several prospective reasons why these types of energy project are less prevalent in the UK. Firstly, to be financially viable, they need a simple and stable support mechanism, especially because community energy schemes are typically slower to implement than wholly commercial projects. The feed in tariffs in Germany, in particular, provided the necessary stability over a decade or more. By contrast, the U.K.'s feed in tariffs (though in principle well-suited to community energy schemes, as described above) were radically amended within 18 months of their introduction.
20. Next, these countries have a more proactive and supportive approach to the two fundamental obstacles to local renewable energy projects; grid connection and planning consent.

#### **Grid connection**

21. The EU Renewable Energy Directive requires member states to give renewables 'priority access' to the grid<sup>2</sup>. Those countries which have been most successful in deploying

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<sup>2</sup> Paragraph 60 of Directive 2009/28/EC of 23 April 2009

community-owned and local generation have interpreted this most progressively and afford renewable generators priority both in connecting to the grid and in despatching their output, when available.

### **Planning**

22. Countries like Germany have limited the adverse time and cost implications of obtaining planning consent in part by resolving certain planning issues at the national level, so that the local consenting process deals only with the genuinely local issues. We suggest below how a similar approach could be adopted here.
23. The EC has supported several studies into legislative and other national barriers to renewable energy deployment<sup>3</sup>, but the UK seems to play little part, and there is no evidence that the Government has acted on their conclusions.
24. Finally, while the UK energy market is arguably more liberalised than any other in Europe, the 'big six' seem to have a very strong influence on government policy making in the sector. It is arguable that a substantial increase in the prevalence of local energy schemes is against the financial interests of, and creates operational issues for, these majority providers. The best interests of the community energy sector are, therefore, are not well understood within the national policy-making process.

### **Is there any evidence that medium-scale energy projects are more likely to be accepted by local communities?**

25. We are not aware of any community energy schemes which have been refused planning permission (though we have not studied all the evidence in this respect), and generally community energy schemes are subject to significantly less local opposition<sup>4</sup>. Certainly we have received very strong local support for our projects and local residents account for over 70% of our membership.

### **What appetite is there for community-owned medium-scale energy projects in the UK?**

26. We believe there is a strong appetite for this type of project in the UK. Both WWC and WSC achieved their funding objectives, and succeeded in raising further funds through secondary placements when required.
27. WSC was 50% oversubscribed when its public offer closed at the end of July 2012. It had to scale back the applications received<sup>5</sup>, and did so giving priority to local applicants.

### **What appetite is there among private sector organisations in the UK to invest in their own medium-scale energy projects?**

28. Our response addresses community-owned projects.

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<sup>3</sup> Such as PV-Legal, funded by the EC's Intelligent Energy for Europe - <http://www.pvlegal.eu/>

<sup>4</sup> See for example the public opinion survey conducted by Oxford Brookes University into the Westmill Windfarm – <http://climatex.org/articles/climate-change-info/westmill-windfarm-local-wind-power/>

<sup>5</sup> though every applicant was issued with some shares

### **What appetite is there among UK local authorities to invest in their own medium-scale energy projects?**

29. Although this is largely for others to answer, we are delighted that the Lancashire County Council Pension Fund has stepped in as the debt provider for the Westmill Solar Cooperative. The local Faringdon Town Council considered an investment in Westmill Solar Co-operative, but in the end did not participate.

### **What are the barriers to medium-scale energy projects in the UK?**

30. The two main obstacles to local energy projects – both commercial and community-owned – have already been highlighted above.

#### **Grid connection**

31. The UK has adopted the most minimalist approach to the requirement for ‘priority access’ by contrast with other more successful European countries. Most renewable generators are allowed to despatch their output freely to the grid, once they are afforded a connection; though some even have to accept contract conditions when they can on occasion be ‘constrained off’.
32. There is no national approach to prioritising renewables in gaining connection to the grid in the first place, and this is left to the discretion of individual Distribution Network Operators (DNOs). While, with a few exceptions, most DNOs try to be supportive; there are large parts of the country, particularly in areas of high solar and wind resource, where the costs of obtaining a connection are prohibitively high, and where there are extended ‘grid queues’ which make project timetables unviable.

#### **Planning**

33. The UK planning system is very patchy and can also apply delays and uncertainty to local energy projects. Wind and biomass generation, in particular, have faced substantial objections and delays. While solar power and anaerobic digestion have been more successful, they too are in danger of increased planning problems in the future.
34. Certain elements of the press have been stoking opposition to local energy projects. Their often unfounded objections seem on occasion to be supported, rather than moderated, by the Government.
35. It does seem that when a new local energy project is proposed in Germany, local people get together to see how they can participate; when a project is proposed here, the locals get together to see how they can stop it!
36. The main barriers to community energy projects stem from the way in which they are structured and resourced. Unlike commercial projects, these are often initiated by local enthusiasts with no specific expertise in the energy sector. Because projects in the early stages are driven by volunteers, they are limited both by the time available and the absence of dedicated financial resources. This means that the development process is slow and relatively uncertain, and projects are often reliant on small amounts of individual risk capital.

37. This puts such projects at a strong disadvantage when the regulatory regime is uncertain or subject to frequent change as further described below. We are delighted to see that the CIC Communities for Renewables<sup>6</sup> has been formed with support from Esmée Fairburn to help community projects overcome some of these inherent problems by providing 'at risk' project development services. We have encouraged them to submit a response to your enquiry.

### **How effective are current Government policies in encouraging local and medium-sized energy projects? Could they be improved in any way?**

38. We are aware of very few "current Government policies in encouraging local and medium-sized energy projects". The Feed in Tariffs (FITs) are in principle welcome, although the frequent changes and the short degression windows limit the benefits of the scheme. The exemption under the EIS scheme for community entities receiving FITs income is very welcome.

#### **Financial support mechanisms**

39. The Renewables Obligation and the CfD's under the EMR are inherently complex, so clearly tailored for energy professionals rather than local generators. Because the FITs offer a more comprehensible price level, these are inherently better suited to this sector, and it would be helpful if the upper limit for Feed in Tariffs were raised to 50 MW for community schemes.
40. As indicated above, the timetable for community energy projects is inherently longer and less certain than in the commercial sector. It would therefore be helpful if the Feed in Tariffs, Renewables Obligation, and eventually the CfD's incorporated a simple pre-registration system under which community projects could be accredited for the applicable tariff level at the time, and this would be guaranteed even if the project then takes some time to reach completion.
41. There is a case for local community energy projects to receive enhanced banding under FITs, ROCs and CfDs.
42. The existing accreditation processes for FITs, the RO and the Renewable Heat Incentive are administered by Ofgem. This is a body which deals with, and is funded by, the energy industry. As a result their procedures seem impenetrable to applicants outside the energy sector. We would propose a streamlined, simpler application process, administered by a more consumer-friendly body, for community energy projects.
43. It is presently unclear whether the Green Deal will provide an incentive for renewable energy deployment in the community sector (or at all).
44. In general the number of potential support schemes, and the frequency with which they change, is bewildering, especially for the non-expert. There is a strong case for rationalisation.

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<sup>6</sup> See <http://www.cfrcic.co.uk/>

## Grid connection

45. The Government should be more proactive in reducing the time (and prospectively the cost) of obtaining grid connections. One small improvement would be to require DNOs to publish maps showing where there is existing connection capacity for projects without the need for substantial infrastructure upgrades.
46. Secondly, as many local generation sources are variable in output, protocols could be established to enable networks to connect more than their nominal rated capacity, with procedures for handling surplus output on the few occasions when all connected generators are at full capacity.
47. In general the whole 'smart grid' evolution needs to be pursued more rapidly and more strategically.

## Planning approval

48. The planning regime has been often tinkered with over recent years, without measurable improvement from the perspective of local energy projects. We support local democracy and do not propose that local planning procedures are circumvented. The system needs to recognise, though, that energy projects are not just like buildings and have technological requirements beyond the day-to-day expertise of most planning officers. We would suggest that a single national review be given to certain over-arching issues for decentralised energy projects<sup>7</sup>. Once these have been determined, they would not be eligible considerations for individual planning approvals, which would instead consider the genuinely local issues.
49. There is a case for community projects to be able to submit planning applications free of charge, or at concessionary fee rates.
50. The concept of 'presumption in favour' has been considered for renewable energy projects in the past, and rejected for fear of abuse by commercial developers. There could be a case for re-examining this for community projects.
51. Finally<sup>8</sup> there are other lessons we can learn from countries, like Germany, which have progressed further towards a more sustainable energy mix. This trend is changing the paradigm for the electricity system from the historical 'baseload + peaking capacity' model. Germany's renunciation of atomic generation is not an emotional anti-nuclear stance; it is a recognition that as variable renewables become 'the new baseload', the primary requirement for the non-sustainable sources that make up the balance, is that they should be responsive. Against this specification, carbon-abated gas-powered generation, for example, can deliver the fast response required; in a way that inflexible nuclear never can.

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<sup>7</sup> Including: "Do we really need renewable energy?"; "Don't wind turbines shred birds?"; "Do they emit harmful radiation?"; "Are generators with variable energy output of any value to the national energy supply?" etc. etc.

<sup>8</sup> and outside the terms of reference of this enquiry, though very much within the remit of your committee