Environmental Audit Committee inquiry into Community Energy

Submission by Community Energy England, Community Energy Scotland and Community Energy Wales, March 2021

Introduction

1. This is a response by Community Energy England, Community Energy Scotland and Community Energy Wales which together represent 700+ community energy groups and associated organisations across England, Scotland and Wales involved in the delivery of community-based energy projects that range from the generation of renewable electricity and heat, to the energy efficiency retrofit of buildings, to helping households combat fuel poverty.
2. Our collective vision is of strong, well informed and capable communities, able to take advantage of their renewable energy resources and address their energy issues in a way that builds a more localised, democratic and sustainable energy system.
3. The overwhelming motivation of people and groups involved in community energy is to make a contribution to averting climate catastrophe, followed by a desire to bring community benefit. We feel that all efforts of the government should share these primary motivations and ensure that whatever else they achieve they also prioritise these goals. Failure to do so is to plan to fail.
4. We are grateful that EAC is conducting this important inquiry and are responding because we feel that community energy is essential to achieving the urgent energy transition to net zero and transforming the energy system from one based on centralised energy supply to one that is more local, flexible, democratised and participatory.
5. However government policy fails to support community energy and, despite repeated warnings from the Climate Change Committee of the vital importance of engaging them, ignores people and communities, focussing instead on big-cheque, centralised, technological solutions.
6. Community energy grew exponentially, more than doubling every year between 2014 and 2017[1] but for the last 5 years policy changes have mostly thwarted the sector such that community energy now struggles to make a business case to get active at all.
7. Policy changes include the removal of ROCs, the Feed-in Tariff, Export Tariff, the Urban Community Energy Fund and Tax Relief, punitive business rates on roof-top solar, planning constraints on on-shore wind and increasing VAT on solar panels, batteries and 'energy saving measures' from 5% to 20%. The Department for Education is planning to

[1] https://communityenergyengland.org/files/document/385/1592215769_CommunityEnergy-StateoftheSector2020Report.pdf

introduce a 'centralised procurement framework' which threatens solar on schools with a high daytime energy demand - one of the few remaining business models for community energy.

8. This threatens to waste a dynamic, community-embedded army of potential supporters who would be a vital ally if they were enabled to get active - which would produce multiple economic, environmental, social and community returns on investment that would far outweigh the upfront government investment. The Friends Provident Foundation, leaders and pioneers in investing in social change, have said, *"There is nothing that provides higher social and environmental returns on investment than community energy".*

Summary of points

- Community energy is key to achieving net zero, supplying grass-roots active engagement in the transition. Community energy has a crucial role to play in the strategic localisation of the energy system, harnessing and developing resources that will otherwise not contribute to the energy transition to deliver local low-carbon generation, energy efficiency and flexibility. Community energy delivers huge social and community co-benefits and just, efficient, energy futures. It has the potential to deliver thousands of green jobs and reskilling, vast carbon savings towards the ambitious NDC 2030 targets, and local projects (and prosperity) that otherwise would not happen. **Community energy should be valued and supported in policy (Net Zero Strategy and Review) and with practical and financial measures (Comprehensive Spending Review) to fulfill its huge potential for all these reasons. Community energy is a good investment for government yielding high and multiple return, meeting many policy aims.** See policy recommendations at 2.11ff
- The Government must improve cross departmental working, removing barriers and making sure that a key aim of policy is achieving net zero as soon as possible, fairly and delivering as much social benefit in the transformation as possible. People and communities must be at the centre of policy. Government and the Regulators must work together to ensure that the transformation is regulated to achieve these aims and that it removes barriers and facilitates community energy. See policy recommendations at 4.1ff
- 'The future of energy is local' so collaboration between community energy and local authorities are key. These must be encouraged and enabled and properly resourced by central government. Local Area Energy Planning with community energy at the centre is an urgent early step.

Call for evidence questions

1. What contribution could community energy (through renewable power and/or energy efficiency) make to achieving net-zero by 2050 in the energy sector and its potential role in decarbonising the heat and transport sectors?

1.1. Community energy is key to achieving net-zero by 2050 or ideally sooner.

1.2. Community energy's contribution to achieving net-zero is about more than 'renewable power and/or energy efficiency' or even decarbonising heat and transport. It is about the most effective way to engage the population in the huge changes we need to see in the energy system.

1.3. It is vitally important to recognise that to get anywhere near the 2050 target (or 2045 target in Scotland), there will need to be (a) a very significant increase in renewable energy generation; (b) a rapid acceleration of measures to integrate it into the energy system; and [c] a very significant reduction in energy consumption.

1.4. The Climate Change Committee is clear on p193 (also p33 and p12) of its Net Zero Report[2], (repeated in the Progress Report and 6th Carbon Budget) that "It will not be possible to get close to meeting a net-zero target without engaging with people or by pursuing an approach that focuses only on supply-side changes". This will require wholescale changes in energy use behaviour, the widespread adoption of smart tech, appliances and energy storage along with the localisation of energy supplies to strengthen resilience and facilitate grid balancing. All of these require the full engagement of local communities & consumers.

1.5. Community energy is an essential means to drive this engagement, being much better than either government or commercial players at engaging communities on such issues as energy efficiency[3]. It also harnesses passion, expertise and capital that the mainstream energy system doesn't - that is essential to that engagement and to grasping every opportunity for change and decarbonisation, no matter how small and local. Decarbonisation requires democratisation - the active consent and participation of the people in a re-localised, flexible, renewable energy system.

1.6. If community energy can supply something that is 'make or break' to achieving net zero, that contribution becomes extremely valuable and deserves commensurate support.

1.7. Community energy generates 12-13 times the social and community benefit of commercial installations[4]. This benefit compounds bringing more benefit much as an invest-to-save policy does, that re-invests savings from energy efficiency in more energy efficiency. Community energy is also about solving many problems whilst transforming the energy system, levering large amounts of social and community benefits, reducing fuel poverty, increasing efficiency so that the energy system decarbonise more quickly and cheaply, building resilience, inventing local replicable solutions, localising the energy system. Community energy projects often buck the

[2] https://www.theccc.org.uk/publication/net-zero-the-uks-contribution-to-stopping-global-warming/

[3] DECC commissionsed report p 6. Community energy was 4.5 times better than British Gas https://www.dropbox.com/s/u2wfz9ouw11wn1v/DECC%20community%20groups%20and%20energy%20efficiency%20report%20FINAL%20DRAFT%20as%20sent.docx?dl=0

[4] https://www.gov.uk/government/publications/community-renewable-electricity-generation-potential-sector-growth-to-2020

conventional economic wisdom of economies of scale, yielding multiple, high returns on investment. A recent study of community energy fuel poverty work identified, on a conservative calculation, a 9:1 social return on investment[5].

1.8. To solve the trilemma of security, affordability and low carbon we need a variety of solutions at all scales, across all low-carbon technologies, and in all localities. We need to explore the extremely local and small-scale which often would simply not happen without community involvement.

1.9. The government recognised that it couldn't meet its net zero target without onshore renewables - which despite being the cheapest - still need ongoing government support *"for the foreseeable future"*[6] to make an investment case. The same applies to community energy - the cheapest way to get engagement and hyperlocal solutions, with the co-benefits listed above

1.10. The community energy sector doubled in size each year between 2014 and 2017, aiming for 1 m homes powered by 2020 (the target identified in the government's Community Energy Strategy 2014). Because of policy headwinds the sector has struggled to achieve 10% of that potential.

1.11. Community energy is hugely motivated, inventive and tenacious and, with some government support to enable a route to market, is ready to scale again, aiming to grow 12-20 times by 2030 to power 2.2m homes, save 2.5m t CO2, create 8700 jobs and add £1.8bn to the economy by 2030[7], as well as secure the consent and involvement of people and communities. This potential is supported by the independent Future of Community Energy report, cited in the Call for Evidence document, which warns that *"current Government policy risks squandering the potential of the sector and there is a pressing need for a new Community Energy Strategy."*

1.12. In the absence of a business model of delivering community benefit projects based on revenues from community owned generation, community energy is being innovative in looking for new business models. Over recent years it has developed innovative PPAs for onsite usage of energy, especially in schools, community centres and on public and commercial buildings. Post Feed-in Tariff very few of these projects are feasible. In the future community energy will be looking to revenue stacking, including from providing grid services and flexibility but currently the income available barely justifies engaging in the markets where it is available.

[5] Bristol University study.
https://drive.google.com/file/d/1BhI6fB4_AS68OC1ClsksKBMEzqeM2z2A/view?usp=sharing
[6] Alex Campbell, ex Head of CfD Strategy, BEIS, workshop, April 2020
[7] https://communityenergyengland.org/pages/2030-vision see also
http://wpieconomics.com/publications/future-community-energy

1.13. Community energy is focussing on adding value wherever it can, particularly in energy efficiency and fuel poverty work where social returns on investment are high.

1.14. It is also innovating on many fronts including creative combinations of technologies, exploring flexibility, local storage and supply, energy data, EV charging, community transport and much more. Many commercial partners are begging to be involved in these community embedded trials as they provide access to information about how new solutions will work in the real world. Repowering London for instance are doing multiple projects, including as part of the Ofgem Sandbox, exploring the cost and benefit of investment in battery storage, connected to local solar generation to reduce peaks, and make better use of local supply when it is available, including by community members intertrading their shares of cheaper, day-time solar energy, storing energy in homes with existing solar panels to reduce evening peak demand[8].

1.15. In Wales, the Energy Local Model has been pioneered in Bethesda enabling local people to use more affordable energy which is generated locally. Near Swansea, Gower Power are also running an Ofgem sandbox project to enable local people to buy 100% community owned electricity.

1.16. In Scotland, local community groups have been key participants in innovative pilot projects demonstrating direct linkage between local renewable generation and local heating, such as in the ACCESS project on the Island of Mull and Heat Smart Orkney, in Orkney. Consortia of groups in the Outer Hebrides are currently developing plans to overcome grid constraints to enable new generation to replace the high local dependency on liquid fossil fuels.

1.17. In England, projects in Hartlepool and Brighton, for instance, are developing community EV charging points and community owned EVs, including scooters, linked to community owned renewable generation.

1.18. Heat is an increasing focus and recognised as a huge challenge. Brighton and Hove Energy Services Cooperative is developing a village scale heat network in Firle in Sussex[9] and exploring the 'energy as a service' model.

1.19. Retrofit is being pioneered by Carbon Coop's People Powered Retrofit[10] project, as part of the BEIS retrofit research programme.

[8] https://www.repowering.org.uk/fuel-poverty-2/

[9]

[10] https://carbon.coop/portfolio/people-powered-retrofit/

2. How well are the financial and technical needs of setting up and running community energy projects met by existing Government support mechanisms? What changes would be needed to the access or nature of support to develop community energy further?

2.1. Barely at all. Cuts in support for community energy over the last five years, which mean that CE now struggles to make a business case to get active, include: removal of ROCs, the Feed-in Tariff, Export Tariff, the Urban Community Energy Fund and Tax Relief, punitive business rates on roof-top solar, planning constraints on on-shore wind and increasing VAT on solar panels, batteries and 'energy saving measures' from 5% to 20%.

2.2. Solar on schools with a high day-time on site usage was one of the few business models that still worked, just, post-FiT, in the south of England and Wales. But the imposition of a 'centralised procurement framework' and unreasonable demands around leases by the DfE has stalled even that.

2.3. When challenged, the government cites the Rural Community Energy Fund (RCEF), which ends in April 2022 and the Smart Export Guarantee (SEG).

2.4. The Rural Community Energy Fund excludes urban areas where most people live, and most energy is used and is for England and Wales only. The Urban Community Energy Fund was withdrawn early in 2016 with £8m still unspent. The RCEF is administered through the Regional Energy Hubs and contains constraints, including demanding external consultants, even when the expertise is held locally. It has been an administrative nightmare for many participants.

2.5. The Smart Export Guarantee (SEG) is so short term that it is no use for providing investor certainty. It is also subject to prices of energy which have fluctuated a lot recently, mostly downward.

2.6. Community energy was excluded from the recent reform of CfDs to support onshore renewables, excluding all projects <5 MW. The government declined to consider our proposal for a Community Energy CfD. See para 1.12 in our CfD consultation response[11]. This means that the approach that is most likely to engage the most people in the much-needed energy transition has the least support.

2.7. Community energy, just as much as onshore renewables, is indispensable for meeting the net zero challenge and needs some consistent revenue support to build an investment case for expansion. This does not mean huge subsidies, just enough to get CE over a low threshold into financial viability. Passion, tenacity, ingenuity and local support will do the rest.

11 https://communityenergyengland.org/files/document/376/1591032846_ContractsforDifference_CEECESCEWresponse.pdf

2.8. Community energy, as social enterprise, does not have access to up-front venture capital funds for developing projects, so grant funding for feasibility and development is often vital, such as is provided by the RCEF, the London Community Energy Fund, and the Camden, Lewisham and Islington Community Energy Funds. Where these funds exist community energy is forging ahead. The Scotland CARES (Community and Renewable Energy Scheme) model also offers loans which are translated into grants should the project prove unfeasible. In 2018, community energy levered £40m of finance from £2.3m of development funding - a ratio of 18:1 which is extremely high.

2.9. Social Investment Tax Relief has been extended until 2023 in the Budget on March 3. It should be extended indefinitely and reformed to reinstate community energy as an eligible investment. This derisks social investment and will enable a chunk of the £100bn that some of the British public have saved during the pandemic to go into social and community enterprises focussing on energy solutions.

2.10. Our policy recommendations for support for community energy are below:

Policy Recommendations for support for community energy

2.11. The breadth of community energy activities is explicitly valued and supported in the Net Zero Strategy (and Net Zero Delivery Framework recommended by the CCC), the Treasury's Net Zero Review, and in the Comprehensive Spending Review with some of the measures set out below.

2.12. A new Community Energy Strategy, supported by reinstating the community energy team at BEIS, the cross departmental working group, and well resourced knowledge sharing for the sector. Whilst a Strategy is important it does not, as we have seen, necessarily survive regime change, so point 2.11 and practical support measures outlined below in the Comprehensive Spending Review to urgently kickstart the sector should be prioritised.

2.13. Government together with Ofgem need to identify and fully resource an approach to 'Local Area Energy Planning' that sets out a core role for community energy groups.

2.14. An Urban Community Energy Fund to complement the Rural Community Energy Fund which must also be extended beyond 2022, (or a national Community Energy Fund after the RCEF ends in 2022).

2.15. A scheme for England modelled on the Scottish CARES (Community and Renewable Energy Scheme) and Welsh Government Energy Service which both offer grants, loans (which can convert into grants if feasibility studies show a scheme is unfeasible), advice, relationship brokering and more. It's important to note, however, that even with the CARES scheme, many community-based projects struggle to reach financial viability owing to lack of any revenue support.

2.16. Social Investment Tax Relief (just extended to 2023) be reformed to reinstate eligibility to community energy.

2.17. Ensure that business rates incentivise (rather than punish - as is currently the case) businesses to invest in local, low-carbon renewable generation and that they support community energy.

2.18. VAT on 'energy saving measures', including solar panels and batteries, reduced to zero.

2.19. A Community Feed-in Tariff (just introduced in the Netherlands at 14.6c/KWh) to offer long-term certainty.

2.20. A Community Smart Export Guarantee with a floor-price for exported community energy and a dynamic tariff to enable projects to take advantage of higher prices at times of peak demand, over a reasonably long term. (The Smart Export Guarantee is too short term to assist in making an investment case for a generation project.) This will offer long-term revenue support to community energy and is simpler and probably preferable to:

2.20.1. A Community Energy CfD, established as a separate carve-out from pot 1. The scheme should be designed with the participation of the sector. The CfD scheme should be opened to sub 5MW projects anyway and an element of community ownership encouraged or mandated to be offered on all projects. In Wales 10% is required. The Netherlands require up to 50% investment opportunity to local communities.

2.21. Energy Efficiency Funding that delivers for genuinely vulnerable people and is available to community energy projects. Indeed, given the significant need to reduce energy demand there could be a case for a 'Community Energy Demand Reduction Incentive' which would be paid to qualifying community groups to help pay for local demand reduction initiatives. The whole question of energy demand reduction, how it links to energy system flexibility and local energy supply is explored in more detail in Community Energy Scotland's recent 'Next Steps in Community Energy' paper.[12]

2.22. A Community Renewable Heat Incentive (RHI) with a reasonable lifespan.

2.23. Grants and funding to allow community energy to work with Local Authorities, develop collaborative projects and do 'Local Area Energy Planning'.

2.24. New procurement guidelines for Local Authorities and other public bodies which provide routes for community energy partnerships. Devon County Council is leading the way by developing a Power Purchase Agreement with Devon Community Energy

[12] Community Energy Scotland (2020): Next Steps in Community Energy:mobilising the demand side, building stronger communities and a just transition in the wake of the COVID-19 pandemic. https://www.communityenergyscotland.org.uk/wp-content/uploads/2020/10/Next-Steps-in-Community-Energy-Full-Paper-Final-25-08-20.pdf

Network which will enable more projects and the increased social benefit that goes with them.

2.25. Ensure that the energy transition is regulated to prioritise decarbonisation as soon as possible and to maximise social benefit, by building this into Ofgem official guidelines. Planning should have decarbonisation as its purpose.

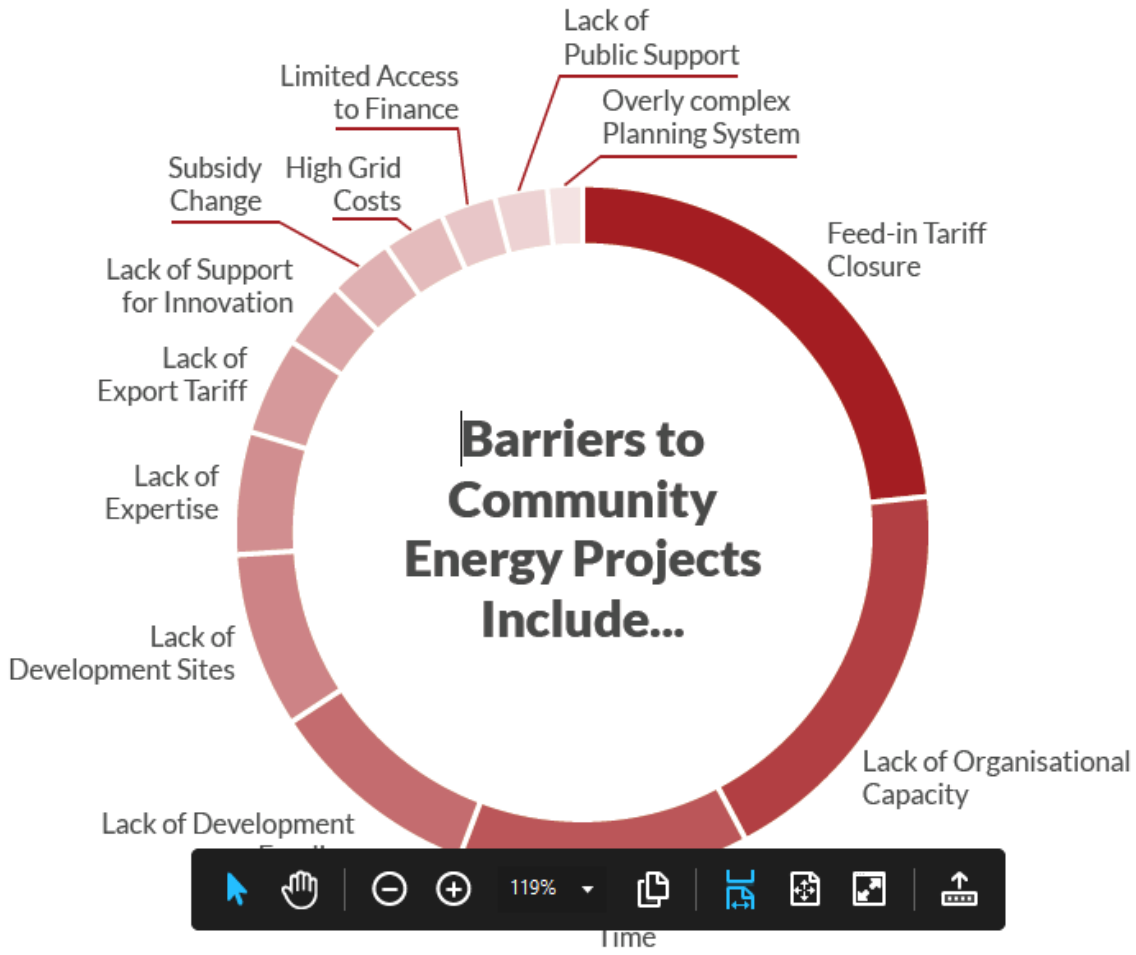
2.26. Ensure that new local energy conservation, efficiency, DSR and flexibility markets are created that are accessible for new entrants and in particular for community energy groups.

2.27. Study and learn from practice in the Netherlands where government has developed a community Feed-in Tariff at 14.6c/KWh. They have developed a joint approach for community energy - all onshore wind and solar developments have to offer up to 50% investment opportunity for local communities. Investments are being managed through a structure led by coops and not by bankers.

3. What are the main barriers to development of new community energy schemes under the current regulatory regime? Do lack of connection or high access charges to the electricity grid pose an obstacle? How could these be overcome?

3.1. The main barriers to development of community energy are explored are thoroughly in the Community Energy State of the Sector Report[13] p27 and are principally around lack of funding and capacity as a result of lack of money.

[13] https://communityenergyengland.org/files/document/385/1592215769_CommunityEnergy-StateoftheSector2020Report.pdf p 27



3.2.

3.3. Connection issues include lack of clarity around capacity to connect to the grid, though this is becoming clearer as Distribution Network Operators improve their data and openness around substation constraints.

3.4. Connection costs are often unpredictable and expensive. The connecting project must pay a sizable portion of any reinforcement costs which may result from a historic lack of strategic investment by the network operator as a result of Ofgem not generally allowing investment "ahead of need". The Green Recovery progamme[14], by Ofgem and the networks will invest £300m in local projects, however proactive engagement with community energy has been very limited. Apparently this pot represents previous underinvestment by the networks. Similar funds need to be available ongoingly and tied in with Local Area Energy Planning so that the money is spent as strategically as possible.

3.5. Access charges are likewise unpredictable. Whilst it is understandable that pricing should be used to drive behaviour we are hearing of projects being warned by their network operator of access charges increasing from £600 per year to £9,000 which would render the project unviable and force it to fold. This is unfair and short-sighted.

[14] https://www.energynetworks.org/greenrecovery

3.6. Ofgem has conducted a campaign against 'embedded benefits' - the advantages that can be gained from connecting small distributed assets to the distribution grid, as opposed to larger centralised (often inefficient) ones connected to the transmission grid. This disincentivises smaller projects which is deeply counterproductive to the transition to a more local energy system.

3.7. Many members comment on the lack of joined up approach between Ofgem and BEIS. See Recommendation at 4.3 below.

3.8. A cross governmental strategic approach to decarbonisation and the energy transition is also lacking is failing to deliver policies adequate to achieving net zero and which creates many blocks for community energy. Planning, controlled by MHCLG is often a block, especially to onshore wind in England. There is no explicit reference to achieving net zero as soon as possible in the 'purpose of planning'. The Department of Education is creating potential blocks to solar for schools projects.

3.9. Market mechanisms are also not fit for purpose. Carbon reduction is rarely valued sufficiently. Virtually all the social and environmental levies for the transformation of the energy system are levied on electricity bills making high carbon gas a disproportionately cheap fuel and slowing the electrification of heat. Addressing this is difficult without exacerbating fuel poverty but it must be done swiftly.

4. What role should Ofgem play in supporting community energy and resolving regulatory issues, such as decentralisation and incorporating community energy projects into smart electricity grids?

Policy Recommendations for Ofgem to support community energy

4.1. Ofgem needs to be proactive, helping shape the energy systems for the future, to enable urgent decarbonisation, localisation and flexibility. It needs to enable investment ahead of need and encourage that to be in the interests of people rather than energy companies.

4.2. Since "the future of energy is local"[15] and since local is highly diverse energy solutions need to be tailored, the government, together with Ofgem, need to identify and fully resource an approach to Local Area Energy Planning that sets out a core role for community energy groups. The investment in gathering stakeholders to do joined up local energy strategy will be recouped by savings in the roll-out of a system that is fit for purpose. Currently community energy is largely missing from the models developed by the Energy Systems Catapult. Community Energy England

[15] Recent energy ministers including Claire Perry https://www.energylivenews.com/2019/01/08/claire-perry-from-power-stations-to-solar-panels-the-future-is-local/

is working with them to rectify this and get government support and funding for the roll-out of LAEPs with community energy at the core.

4.3. Ofgem needs to have decarbonisation and maximising social benefit as central principles for how it regulates the transformation of the energy system in its formal remit from BEIS. Their 'Environmental and Social Guidance' has not been updated since 2011 and OFGEM stopped reporting against it in 2018. Government must set out its expectations of Ofgem in a new Strategy and Policy Statement. (A consultation was carried out in 2015 but no Statement was ever issued). The need for this update was highlighted in the Energy White Paper, p 86 and must be expedited immediately. This must include support for community energy, Local Area Energy Planning and enabling local collaborations around local energy solutions.

4.4. Ofgem should be planning to decarbonise ahead of the government's current 2050 net zero target, which current science shows should be brought forward. It therefore must put in place better methods to allow investment ahead of need. Ofgem must encourage network operators to reinforce the grid at its outer reaches to allow local community solutions and 'smart local energy systems', interconnecting new low carbon demand, generation and Demand Side Response and flexibility measures which community energy is so good at identifying and realising. The cost of these investments should be largely socialised - initially borne by the network operators and supplemented by central government from general taxation as necessary.

4.5. It needs to end prioritisation of 'lowest cost' and to recognise that 'technology neutrality' is blindness - not all generation is created equal and many high-carbon ones can locate to benefit from low costs eg gas OCGT, and diesel peaking plants, whereas community energy cannot relocate. The result is that regulation blocks community energy and often enables high-carbon energy.

4.6. Community energy delivers 12.13 times the benefit of commercial installations. Ofgem has no way of prioritising projects that deliver this sort of benefit over commercial projects, by for instance allowing a community energy project that is ready to connect to the grid to jump the connection queue over a dormant commercial project that is simply queue squatting waiting for the time and opportunity to realise a profit.

4.7. Ofgem should socialise the cost of upfront investment that will help realise these social and climate goals. Connection and access charges should be reasonable and consistent and minimised for projects that are solving grid, climate and social problems.

4.8. Ofgem and government should remove the barriers to local supply to enable local companies and community energy to supply their immediate community. The Local

Electricity Bill, if property drafted, will enable this. The minister said the government would not support the Bill because of fear of unintended consequences. That fear could deter just about every climate solution. But for a localised energy system local supply is vital. Hyperlocal supply at substation level should be enabled to allow peer to peer trading, along with Modification 379 which would allow multiple suppliers to supply a customer through meter splitting - a reform that is currently being blocked by the big energy companies.

4.9. Ofgem, Elexon, ENA, DNOs and others controlling the regulation and transformation of the energy system must proactively facilitate community participation by remunerating representatives to participate in Modification panels and Challenge Groups. Otherwise the big energy companies that can afford staff to represent them on these panels wield unfair influence and can shape the changes to suit their interests. It is notable that some DNOs are leading the way on developing community energy strategies linked to their ED2 plan development, but there is no specific guidance or encouragement from OFGEM for this; and no guarantee that OFGEM will accept such strategies within the ED2 plan submissions later this year.

5. What role can local authorities play in developing community energy, for example in planning, decision making and the availability of sites for energy generation?

5.1. Local Authorities are key to decarbonising the UK as they control much of the infrastructure, the new development, and the services that affect our lives.

5.2. Many have set ambitious Climate Emergency Plans the majority aiming for net zero by 2030. However many have very little idea of how to make this and often very little capacity to engage in the task.

5.3. Knowledge sharing and coordination is absolutely key and has been signally absent on the part of government and even the usual coordinating bodies like the Local Government Association. It has mostly been done by volunteers such as www.climateemergency.uk and NGOs.

5.4. CE has much to offer, in the way of local expert knowledge, community networks, entrepreneurship, access to community capital, power to convene and more.

5.5. Local Area Energy Planning is hey and must be fully resourced with community energy at the centre, with resources for both the Local Authority and community energy. See Recommendations at 2.13 and 4.2.

5.6. Collaboration is key and must be resourced.

5.7. Local authorities should be encouraged and mandated to work with community energy including by:

5.7.1. Offering sites and assets and permissions for community energy developments.

5.7.2. Investing, providing office space, staffing resources, publicity, connections with schools and other potential partners.

5.7.3. Commissioning community energy groups to carry out work (rather than remote consultants) including:

5.7.4. Involving community energy in retrofit and fuel poverty work.

5.8. Local authorities' own operations however only account for between 2-6% of emissions from their area. They do however have a responsibility to engage their residents urgently in very large changes involved in decarbonising an area. Community energy groups will usually be more effective at this than local authorities.

6. How can policy ensure that community energy projects maximise their positive impacts (social, environmental, economic) on the local communities?

6.1. Give community energy a 'route to market' to investment to get active.

6.2. CE is very motivated to deliver benefit to the climate and to communities. It is very enterprising, tenacious, creative, innovative and strategic but Local Area Energy Planning would both bring benefit to community energy and also benefit from community energy being at the heart of local collaborative planning.

6.3. "Community energy generates community energy" to do more projects, deliver more creative solutions, engage more local people in the energy transition. 'Nothing succeeds like success' and active financially viable local projects allow community energy to snowball and its benefits to compound.

6.4. Most important are practical measures of support in the Comprehensive Spending Review to get community energy scaling and realising its vital potential. Being included in the Net Zero Strategy, government Public Engagement on Net Zero Plans etc is really important to educate wider government to the importance of community energy and make sure it continues to be included in policy.

7. What are exemplars of successful community energy systems from across the UK's urban and rural communities; what makes them so successful?

7.1. We would refer you to case-studies of the winners of the Community Energy Awards of recent years on our website[16]. We highlight a few below and have encouraged members to make their own submissions.

7.2. Community engagement is about genuine involvement and empowering people to have a real stake and controlling say in their projects and the

7.2.1. Repowering London and its projects such as North Kensington Community Energy approach community energy in a deep way as witnessed by their community engagement strategy[17]. They provide paid internships, paid community energy champion roles, training, mentoring, a fully democratic model[18]

7.3. Generation, solar, wind, water.

7.3.1. In Wales Egni, is the largest rollout of rooftop solar in Welsh history, installing over 4MW of community-owned rooftop solar. Awel Aman Tawe who set up this Coop had already developed a 4.7 MW community-owned wind farm. They were able to use some of the community benefit fund from that project to lever in additional funding to employ a small team to deliver the roll out of Solar PV across 100s of buildings in Wales[19].

7.3.2. In the Outer Hebrides, there has been considerable community energy development, culminating in 7 community-owned wind farms (installed capacity 23.1MW) and many energy related improvements to community facilities. Revenue from community windfarms is considerable – estimated at around £2m pa in total; revenues are managed and invested individually by each community organisation

7.4. Fuel poverty and energy efficiency

7.4.1. South East London Community Energy (SELCE) and Energise Sussex Coast have used income from renewable generation to support them to do fuel poverty and energy efficiency work. A recent study calculates conservatively that this work yields Social Returns on Investment of 9:1.[20]

[16] https://communityenergyengland.org/pages/case-studies
[17] https://docs.google.com/document/d/1EXXnQ0PaCGJd2yXFPBna3TtN3HZjOgR_ZiCMoAVGCpU/edit
[18] https://www.repowering.org.uk/education/
[19] https://egni.coop/
[20] 2 page summary of Bristol University study.
https://drive.google.com/file/d/1BhI6fB4_AS68OC1ClsksKBMEzqeM2z2A/view?usp=sharing

7.4.2. Project C.H.E.E.S.E[21] (Cold Homes Energy Efficiency Survey Experts) has developed a replicable model to reduce domestic heat loss at low cost through the use of thermal imaging surveys. They assist people in fuel poverty to have warmer, healthier homes and to reduce the carbon footprint of homes by increasing their energy efficiency.

7.4.3. Carbon Coop's People Powered Retrofit is empowering residents to plan their own whole house retrofit, developing skills, as well as transforming homes.

7.5. **Innovation**, creatively combining many technologies and partnering with many organisations, is at the core of what many groups are doing in an attempt to find a business model. Many projects are working on storage and flexibility.

7.5.1. Project LEO

7.5.2. Repowering London are doing 4 innovation projects combining a number or technologies around local supply, intertrading of surplus local energy among residents living adjacent to community owned solar arrays, batteries co-located with domestic solar installations to reduce peak demand and bills, and energy data[22] - CommUNITY (not sure where that one's at)

7.5.3. Next Generation projects. I believe Power to Change have made a submission with more detail on these projects[23]

7.6. **Storage, flexibility and demand side response (DSR)**

7.6.1. Bristol Energy Coop 223kw Tesla battery stores energy from local solar panels to power a microgrid driving heat pumps as well as providing services and back-up to the national grid[24].

7.6.2. Carbon Co-op's OpenDSR[25] project which is developing the Power Shaper service which will enable our members to help run the electricity grid by allowing us to control appliances in their homes in a non-disruptive and largely automated fashion.

7.6.3. Bath and West Community Energy's Flex Community[26] providing automated demand shifting to power EV charging and heat pumps at off peak times.

7.7. Transport

7.7.1. Brighton Energy Co-op are pioneering connecting their existing solar panels to PV chargers as a way of assuring revenue to continue developing community projects[27].

[21] https://cheeseproject.co.uk/ (case study: https://communityenergyengland.org/pages/c-h-e-e-s-e-2018-community-energy-carbon-saving-award-winner-case-study
[22] https://www.repowering.org.uk/fuel-poverty-2/
[23] https://www.next-generation.org.uk/innovation
[24] https://bristolenergy.coop/our-community-investors-are-leading-the-net-zero-transformation/
[25] https://carbon.coop/portfolio/opendsr/
[26] https://www.bwce.coop/flex-community/
[27] https://brightonenergy.org.uk/electric-vehicle-charge-points/

7.7.2. Harbury e-Wheels use 2 EV cars to provide free volunteer transport to people referred to them by social agencies and surgeries. In 2019 they delivered 1600 hours of free transport covering 17,300 miles.[28]

7.7.3. Riding Sunbeams is providing power from community owned trackside solar to help power train, a global first[29].

7.8. Heat

7.8.1. Brighton and Hove Energy Services Cooperative (BHESCO) are working in Firle, Sussex to develop village-scale heat networks connected to ground source heat pumps. They have made their own submission to this call for evidence.

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FURTHER INFORMATION

Community Energy England (CEE) was established in 2014 to provide a voice for the community energy sector, primarily in England. Membership totals 270+ organisations. Many of the member organisations are community energy groups, but membership extends across a wide range of organisations that work with and support the community energy sector.

www.communityenergyengland.org

Community Energy Wales is a membership organisation with over 50 members throughout Wales. Our shared vision is of strong, well informed and capable communities, able to take advantage of

[28] https://www.harburyenergy.co.uk/harbury-e-wheels/
[29] https://www.ridingsunbeams.org/

their renewable energy resources and address their energy issues in a way that builds a more localised, democratic and sustainable energy system.

www.communityenergywales.org.uk

Community Energy Scotland (CES) is an independent registered charity and membership organisation with around 400 non-profit community group members across Scotland. Our **vision** is of strong, well-informed and capable communities across Scotland, able to take advantage of their renewable energy resources and address their energy issues in a way that builds a more localised, democratic and sustainable energy system. Our **mission** is to strengthen and empower local communities by helping them to own, control and benefit from their local renewable energy resources, control and reduce their energy costs, regenerate their communities and play their part in the low carbon transition. We aim to work in partnership with community groups and any others who share these aims and wish to build their understanding and capacity to create a more democratic energy system.

www.communityenergyscotland.org.uk