

May 2023

Community Energy England response to Ofgem Call for Input: The Future of Distributed Flexibility

Introduction to Community Energy England

1. This is a response by Community Energy England (CEE), which represents 270+ community energy and associated organisations across England 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. It is co-signed by Power to Change, Plymouth Energy Community, en10ergy, Communities for Renewables CIC, Atlantic Energy Ltd, Bishop's Castle Climate Action Group and the Othona Community, Bradwell-on-Sea, Essex
2. Our 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. Community energy refers to the delivery of community led renewable energy, energy demand reduction and energy supply projects, whether wholly owned and/or controlled by communities or through partnership with commercial or public sector partners.
4. 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 and social benefit.
5. We believe that these motivations should be shared by all working in the energy sector and on energy system transformation.

General comments:

6. As a small trade association we have not had capacity to engage fully with this technical consultation. However we wanted to make a few general points about evolving flexibility.
7. We welcome that you identify that flexibility is essential and your vision of a flex-centric energy system. We welcome the emphasis on local and the correct perception that issues - in our view principally price - are "preventing distributed flexibility from fully offering and receiving their system value."
8. We welcome what Alshay Kaur writes: "...the system can become truly smart and flexible. This will be especially critical at distribution level where the transformation will happen on a local basis, with changes to the way people fuel their vehicles and heat their homes happening on a street by street, town by town basis and a growth of local generation of

power. The changes needed to the energy system will need to empower consumers and deliver the right outcomes for all. New innovations will give consumers more control to save money through access to better data and regularly updated prices.”

9. The simple future tense is hopeful but not certain. Laura Sandys who writes the other Forward has said, “Citizens have a veto on net zero”. If they aren’t interested or don’t respond to the price signals by buying into the technology (as they demonstrably often do not) then it will not happen. The Climate Change Committee has repeatedly warned: “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...Some of the difficult decisions that will be required (...) will only be possible if people are engaged in a societal effort to reach net-zero emissions and understand the choices and constraints... people need to be brought into the decision-making process and derive a sense of ownership of the Net Zero project.”
10. Flexibility is at least in part about how people use energy. Some of it can be automated which is to be welcomed but it will involve a ‘society wide change’ in how we use energy.
11. As Laura says in her Forward: it “requires a very different approach to how we unlock these distributed assets and create opportunities for actors to participate effectively in markets” She emphasises the need for “additional open, democratic, digital tools to deliver us the functionality we need in this new energy system.”
12. People and communities are again too absent as in this consultation as other than participants in markets. A key ‘open, democratic’ tool, other than an app, or a widget, or a gadget, to get people involved in actively participating in the evolution of the energy system is community energy and the pro-active, passionate early adopters, advocates, experts, investors, foot soldiers. These active grass-roots agents and advocates for and deliverers of change must be built into Ofgem’s thinking, policy planning and implementation, consultations and communications, as I have fed back many times before.
13. Community energy organisations are always looking for new and strategic ways to deliver decarbonisation and community benefit (as the old business models of installing more local generation are made increasingly difficult to execute). Some have tried to engage with flexibility but the general message from our members is that the tender is often not in their area and even if it were, the money offered in the auction is insufficient to build a business case for building flexibility assets. If the value of carbon avoided by the flexibility asset was priced in, rather than just the value of avoided reinforcement, then it is likely that the price would enable flexibility projects to happen. (One organisation told us that installing batteries for flexibility is not financially viable. They do it to store daytime generation and sell at times of peak demand when the price is high, which is ‘flexibility’ but not enabled by the current flexibility market or auctions.)
14. The result has been that big companies like Centrica have been monopolising the market on a ‘loss leader’ approach which means that it will effectively have cornered the market when

it has matured and become profitable. This is not a good outcome and will prevent smaller scale assets from being able to participate on a level playing field with larger assets,

15. Additionally, very key problems for community energy organisations that have engaged in flexibility have been interoperability of products, access to data, including smart meter data. This will require a nationally (and internationally) joined up approach which a single entity with strong links to government is better placed to deliver.
16. Community energy has several projects under the [Energy Local](#) Complex Site derogation model, which are supplying energy to local (social housing) residents at as little 6.3p p kWh against the capped price of 34p. In Bethesda the Energy Local project is doing local balancing and flexibility alongside local low carbon power. In Blaenau Ffestiniog it is using local low carbon electricity to power a local heat network which can deliver flexibility at scale. It is reducing power system volatility, smoothing peaks, managing intermittent renewable resources as well as connecting this local system with the customer and managing their (unwitting) participation in all those markets. These sorts of “pockets of excellence of distributed flexibility” can provide “ex post” data now and should be enabled far and wide to pioneer how local flexibility projects can be created linking DER creatively with DSM whilst delivering multiple community benefits. This sort of joined up operation has the ability to alleviate rather than cause network constraints.
17. We welcome that Laura Sandys specifically identifies flexibility at the substation level, where community energy is mostly operating. We have seen examples of reinforcement projects that have gone ahead because DNOs could not be bothered to examine creative flexibility measures proposed by community energy projects. The substation data in many cases is simply not available or good enough to be able to do good flexibility planning. This needs urgently to be rectified.
18. We support the “need for a coherent, proactive policy around a common digital energy infrastructure to system data”. Access to data and the lack of interoperability of products has been a blocker on several community energy flexibility projects.
19. We support “the need to ‘join the dots’ across the many markets in which CER could add value, from managing the balance of supply and demand of electricity, to supporting local energy grids, to helping operate the energy system.” Community energy is active in many of those areas but also crucially in engaging with local people who will ultimately make the decision as to whether to engage with flexibility or not. Without that advocacy and their engagement the flex-centric vision will remain unrealised. The call for input document implies that distributed flexibility will “directly creating an energy efficient and energy conscious culture for consumers”. This is not a given. The infrastructure and the ‘consumer-focus’ is vital but so is the engagement of people in this market which cannot be left purely to market signals.

Questions

1 The imperative, potential, and challenges of flexibility

1. What do you think distributed flexibility could contribute to the energy system?

20. It can
- a. reduce the need for network reinforcement, at all levels, for vastly increased generation capacity (though we need much more of both) thereby saving carbon and creating a smarter, leaner energy system.
 - b. It can enable more variable renewables on the system and remove the need for large amounts of safety net firm generation - undermining the government's case for more nuclear, although probably not in time to stop them wasting a lot of money on it.
 - c. Engage people in contributing to the evolution and decarbonisation of the energy system by participating in it actively.
 - d. Increase the connections between local generations (ideally community owned) and local demand, empowering local communities who create these joined up solutions.
 - e. Increase the opportunity for customers and community energy to save money and make revenue which can be spent on further decarbonisation and community benefit.
 - f.

2. Will a focus on CER flexibility also help enable other forms of flexibility, especially distributed flexibility?

21. Potentially. The call for input document says "A flexible system should not change how we use our devices". This smacks of the government's desire to 'deliver net zero' by decarbonising the status quo, including growth and do so without anybody noticing the change or having to do anything differently. This is impossible even if it were a good idea. It is vital that an engaged citizenry is conscious of the impacts of its energy use and makes some effort to mitigate it by responding dynamically to it. For some this may be a simple response to market signals or pressures. But consciousness brings more than just good market behaviour and can enable proactive rather than reactive behaviour. Without that being maximised we won't negotiate the change the system has to undergo. And that depends on early adopters, mavens and other change-makers, so many of whom are active in community energy.
22. We agree that "Engaging effectively with CER, their owners and aggregators represents a significant technical – and critically cultural – change to the energy system architecture." It is a culture change that the industry, nor probably the FSO, are equipped to do. It is the daily bread of community energy - just one reason why it should be central to flexibility planning.
23. Community energy organisations have the potential to install and aggregate large numbers of CERs to provide a quantifiable, predictable, marketable service. But this must be actively

facilitated by the networks. One recent project trying to connect a 5 MW solar array was offered a 2.5MW connection. The project offered to connect 600 Mixergy water heaters in local homes which would have provided 2.5MW of demand side flexibility to soak up the extra generation capacity. The DNO could not get its head around this concept and so still refused to connect an array larger than 2.5MW. Additionally we observe that few commercial organisations would have the capacity to organise that level of CER flexibility in a single location on the distribution grid.

2 An approach pivot: The case for change

3. Is there a 'case for change' and a need for a common vision for distributed flexibility?

24. Yes.

4. What is your vision for how to accelerate the delivery of accessible, coordinated and trusted markets for distributed flexibility?

25. An ambitious shared vision supported by a well argued case; speeding up digitisation and digitalisation of system data; development of standardised protocols and interoperability of flexibility assets; better access to markets with the full value of flexibility reflected in the price; more visibility of what participation in flex could bring and more trusted advocacy and pioneer projects to get more participation.

5. Will certainty of an end vision help accelerate enabling work and make it cohesive?

26. Yes.

6. When should a common digital energy infrastructure be in place? And therefore, when should development begin?

27. As soon as possible and as soon as possible. Incompatibility and lack of access to data is a major stumbling block for community organisations that have tried to engage with flexibility. The smart meter system still needs sorting out.

3 What that future could look like

7. What should a common digital energy infrastructure look like, and why? Please consider the archetypes or develop your own proposition.

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8. What is your view on the desirability and feasibility of the archetypes or your own alternative proposition?

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4 Delivery considerations

9. Should a common digital energy infrastructure be new-build, or should it build-out from existing infrastructure?

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10. What are the important areas for consideration when designing institutional delivery models for a common digital energy infrastructure?

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11. What are the important areas for consideration when designing financial delivery models for a common digital energy infrastructure?

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Signed by:

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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 over 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