

October 2022

Community Energy England response to the BEIS Review of Electricity Market Arrangements.

Introduction to Community Energy England

1. This is a response by Community Energy England (CEE), which represents 300+ community energy groups 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.
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.

Introduction and general comments.

As a small organisation CEE has not had capacity to engage with this Review as fully as we would have liked. As a result we cannot answer every question as fully as we would have wished. We have read the consultations document and have attended a BEIS full day conference, have discussed it with expert colleagues and attended a couple of explanatory webinars.

We will have to limit ourselves to general comments and a few comments on particularly relevant chapters and rely on the reader at BEIS to apportion them to appropriate sections of the consultation for consideration.

1. Community energy electricity projects are mostly connected to the distribution grid about which there is very little in this Review. Increasingly larger scale generators are supplying electricity to larger customers via PPAs.
2. We believe that the future of energy is local and that local markets, including local supply, flexibility, demand side management and energy efficiency/demand reduction, below the current wholesale markets are key to getting there. Local is key to demand side interventions in particular as it is where most energy decisions are made and most energy is used.
3. Community energy has a key role to play as a trusted local intermediary in advocating for and often delivering the changes necessary as well as participating in local strategic energy planning. Synergies with local generation potential are likely to be achieved with local community based organisations, as they are often too small, individual and uncommercial to be of interest to large commercial players.
4. There remains huge untapped potential for local generation and for local investment to make it happen. Policy headwinds have prevented this growing exponentially as it was between 2014 and 2017. These vital local participants in the energy transformation must be facilitated by government support and policy and market arrangements at a national level.
5. We agree that current market arrangements are not sufficient to achieve the energy transformation that is necessary to 2035.
6. We believe that whilst the necessary transformation is huge and urgent and that nothing less than system change is required to avert an existential threat, it must be a transition, an evolution that does not make precipitate changes that close off future evolution or destroy confidence in market participants.
7. Not all decisions by market participants are driven by market signals. The adoption of EVs is far outstripping predictions and is mostly not driven by incentives (which are being reduced). Many people (including an increasing proportion of investors) want to do the right thing and have an impact.
8. The energy system must also be treated holistically, taking into account huge changes that need to happen in other areas of energy policy and the energy system to facilitate efficient achievement of net zero. For instance alongside the electrification of heat we need huge strategic investment in building energy efficiency so that we minimise the energy (and grid reinforcement) that will be needed long term. It has been estimated that taking UK housing to EPC would reduce grid reinforcement costs alone by £8bn, aside from huge amounts of energy that otherwise would be wasted. The grid must be proactively reinforced at its edge to facilitate increased installation of local Low Carbon Technologies - both supply and demand side - as well as systems to balance them. This is not happening under ED2 plans.
9. So holistic, strategic planning must happen at a national level to put in place arrangements that will mobilise investment, both government and private, in the development of the different components of the energy system in the right order. It

- should follow the energy hierarchy, prioritising reducing first so that we only build the capacity that we actually need rather than supplying current wasteful demand.
10. In recognition of the widely differing conditions, needs and opportunities in different localities, Local Area Energy Planning must be facilitated (even mandated), and financed, with local community energy at its heart. The strategic plans arising must also be sufficiently funded and financed to happen. However it evolves the wider system must recognise and be able to accommodate and take advantage of local difference.
 11. We believe that introducing either zonal or nodal pricing in the near term would have many negative impacts on generators and potentially on customers incurring increased prices 'over which they have no control'.
 12. Ultimately locational pricing in some form may incentivise localisation of the energy system which we believe should be a key goal of this Review and an outcome against which its measures should be judged.
 13. In order to minimise the need for huge grid reinforcements and increased centralised generation capacity it is vitally necessary that increase in local generation and balancing are facilitated. Some of this must be done at national level to send price signals to generators, the networks, suppliers and other wholesale customers.
 14. Local generation for local users is more efficient than moving energy over distance on higher voltage grids. This is not sufficiently built into the pricing of energy at present. Locational signals are probably key to doing this but this must be done carefully and incrementally to avoid locking into a system which thwarts future evolution and increases costs for many of the key local players, generators and consumers.
 15. Currently Repowering London's 'RouPELL Park Energy Local Club' is supplying local solar electricity to social housing residents who live beneath or near the panels at 6.3p p kWh. This undoubted social good is facilitated by local supply which needs to be enabled by this review.
 16. The central market arrangements should facilitate the transition to a more localised energy system, with local markets, as quickly as possible.
 17. This may involve prioritising the local with some sort of incentives and arrangements for instance to mandate a percentage of local procurement by suppliers and the public sector and encourage PPAs with local generation by energy users, to prioritise local balancing of the system with trading up the levels to make up any shortfalls.
 18. Local markets can and should be able to operate alongside national markets.

Chapter 5

Question 14. Do you agree that we should continue to consider a split wholesale market?

No

Other measures should be used to ensure long term stability and lower prices in the market that better reflect the marginal cost of our energy mix. These include PPAs and CfDs (which need reform to be useful to local communities developing <5MW projects.) The government refused to consider a floor price or any long term guarantee on the Smart Export Guarantee, making it neither a Guarantee nor Smart (as it failed to address the market failure of encouraging much new sub 5MW generation). Had they proposed an adequate long term floor price that was useful to smaller developers they could also have built in a ceiling above which revenue reverted to the government on similar lines to the CfD, which it seems they are now actively exploring.

Question 16. Do you agree that we should continue to consider both nodal and zonal market designs?

No

We believe that the potential downsides of locational marginal pricing are greater than the benefits and still largely unknown so would introduce uncertainty into the market at a time when we need investor confidence to hugely grow the renewables portfolio over the next 13 years. The potential (as we understand it from modelling by Regen) for generators to be handed large amounts of extra risk (currently borne by the ESO) arising out of future price fluctuations and market conditions beyond their control will prevent projects from happening.

The vastly different potentials for energy generation and supply/demand profiles of different parts of the country would increase cost disparity which would be more likely to be passed on to the customer than in current arrangements.

Making it possible and attractive to resolve system constraints can be done with other mechanisms such as via local flexibility markets, based on transparent local constraint data (as yet in its extreme infancy). Currently the full cost including carbon cost of constraint is not reflected in the market price place for flexibility so that it is not cost effective for other than big players taking a loss leader approach to build flexibility assets.

Locational factors around wind or solar potential, available sites, getting planning permission, local community support and a grid connection (currently limited to 1MW in large parts of the country by NG ESO) are far greater considerations. For a while peaking gas and diesel plants have been snapping up sites where it is cheap to connect (due to Ofgem's resolute technology agnosticism) creating constraints for lower carbon generation down the line.

Question 17. How might the challenges and design issues we have identified with nodal and zonal market designs be overcome?

We consider nodal and zonal models should not be pursued.

Question 18. Could nodal pricing be implemented at a distribution level?

No

Question 19. Do you agree that we should continue to consider the local markets approach? Please consider the relative advantages and drawbacks, and local institutional requirements, of distribution led approaches.

Yes

To facilitate the transition to a system where more energy is generated and used more locally a local markets approach should be explored where the system is balanced from the bottom up with the national balancing market used to make up shortfalls. The system should seek to rectify current structural imbalances in the system - more electricity being generated in NW Scotland and more consumed in SE England - but the system must be designed to ensure fairness for energy users and generators in all parts of the country. The local 'zonal' 'imbalance pricing' proposal is fraught with the dangers of the LMP zonal system and could create very high imbalance costs for some regions.

Local markets can and must operate together with national markets in a bottom up and top down approach with the bottom up being incentivised to lead the development and localisation of the system. A principle approach should guide action. We want to incentivise low carbon, local supply so we must put in place market arrangements and regulation that deliver that. DSR and Flexibility markets should be a first priority and could help develop local energy systems which would solve system problems as well as deliver huge local economic, social and community benefit. Presently there is little incentive to participate because prices are so low.

A combination of the Pownall and Olivella-Rosell models working closely with the DSO (and perhaps a Smart Energy Service Provider ensuring local operability and the FSO perhaps operating as central clearing house or buyer/supplier of last resort. They should have the obligation to buy local and clean first to avoid high-carbon suppliers who can compete at times of higher demand getting priority access to supply.

Question 20. Are there other approaches to developing local markets which we have not considered?

Yes

It is vital to support the supplying and trading of electricity locally. The government should progress work started in response to the Local Electricity Bill and put in place mechanisms to enable local supply.

This is a right in Europe which has triggered lots of national and regional inquiry into how this should happen. It would be worth looking at evolving examples in Europe. [REScoop.eu](https://rescoop.eu), the representative body of community energy in Europe, will be able to signpost to best practice.

It is important to put in place other measures to incentivise local supply such as reforming licence exemptions to make them less onerous for local operators. I think only 3 license exemptions or [Licenses Lite](#) have been issued which show that they are not fit for purpose as they currently stand.

It is important that the government supports Elexon modification P441 which seeks to put the complex site derogation under which the Repowering London's 'Energy Local Club' (and others) operate into regulation. Previous modifications P379 to enable meter splitting which would have enabled local supply were squashed by the big energy suppliers defending their centralised supply model.

Chapter 6

Question 24. Are we considering all the credible options for reform in the mass low carbon power chapter?

No

It would be beneficial to move away from a volatile and unpredictable market based on locational marginal pricing and develop a stable environment where long term contracts can be let at fair prices much nearer the lower marginal cost that renewables, and especially local renewables, can offer.

A key way of doing this would be for the government to enable Power Purchase Agreements including sleeved PPAs. This is an established model but not extensively used. Developing standardised contracts for sleeved or virtual PPAs would increase take-up, transparency and trust. This would be quick to implement, would enable smaller <5MW projects which can't access CfDs as they currently stand, and would help decouple electricity supply from gas prices at no additional risk to government. Suppliers could be mandated to enter into PPAs if requested to do so.

The government should support local energy supply solutions from peer-to-peer to local tariffs that recognise the benefits of local including in increased efficiency – The benefits of local supply, including reducing the need for network reinforcement, are worth some loss of revenue from network charges although fairness must be kept under review and cost should be distributed fairly including (at a reduced rate) to local supply projects.

Community energy projects should be supported for the increased community and social benefits they bring including enhancing the local economy, reducing energy demand, delivering fuel poverty work and more.

Local integrated projects should be proactively supported, eg. combinations of generation, storage, demand side response, heat, transport - for the added resilience they can deliver.

Local Area Energy Planning must be supported in policy and funded for the cost savings it delivery by allowing strategic delivery. The delivery must also be adequately funded.

The DNO's transition to the DSO role must be adequately supported. The current Ofgem proposal to harmonise all ED2 business plans according to the 'System Transformation' Future Energy Scenario, which will not deliver net zero by target dates, is a dereliction of duty.

Ofgem should have decarbonisation added to its official remit. Additionally 'maximising social benefit from the energy transition' should be added as a principle by which it regulates the energy transition allowing projects that deliver decarbonisation and social benefits to connect ahead of high carbon commercial projects.

There must be significant investment in supply chain and skills for the energy transformation - not just in the electricity sector but in all energy sectors that, as mentioned earlier, must transform to enable net zero as soon as possible.

As mentioned earlier this critically must include energy efficiency and building retrofit to enable the efficient transition to low carbon heat via electrification. Heat is something that can only be delivered locally although it may be powered by electricity. Local conditions, such as suitability for heat networks, local waste heat sources, retrofit preceding heat pump installation etc must be assessed and planned for locally. Community energy should be central to that process.

Question 25. How could electricity markets better value the low carbon and wider system benefits of small-scale, distributed renewables?

Community energy is vital to the net zero transition and the transition to a more localised energy system. The Climate Change Committee is clear 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...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.”*

Community energy is both a trusted advocate and key local delivery partner of the changes that are required.

It can also mobilise large amounts of patient local investment in impactful local change projects. In the NW of England the Rural Community Energy Fund pipeline is delivering £69 of community investment for every £1 of government seed grant funding. These projects deliver huge social, environmental and community benefit as well as powerful public engagement for net zero. Community wind in Scotland delivers on average 34 times the community benefit of commercial projects. Community energy efficiency and fuel poverty projects deliver social returns on investment of at least 9 to 1.

All of this means that policy and funding from government to support community energy over a low threshold into financial viability is good value for money. Yet the government has removed all support including declining to replace the Rural Community Energy Fund with a National Community Energy Fund in March 2022. Despite being presented with the 69:1 finance to development funding ration mentioned above the government continues to advocate the capital funding schemes such as the Levelling Up and Shared Prosperity Funds which deliver only £1 of project for every £1 of grant. The inadequacies of the Smart Export Guarantee have been described above.

The CfD should be extended to include <5MW projects with a ‘carve-out’ for community energy with understanding that the strike price will be high to take account of higher costs to deliver with social outcomes and at a local scale. We proposed this in detail in our submission to the [Contracts for Difference consultation](#) in 2020. We also describe the Irish Renewable Energy Support Scheme which has such an allocation for community energy at point 16. To facilitate community energy participation at a smaller scale a simplified Contract for Difference is necessary. A well designed Export Guarantee would do the same job.

26. Do you agree that we should continue to consider supplier obligations?

Yes

We have mentioned several above including obligation to source locally, to facilitate PPAs.. Willingness to pay a fair SEG price would be helpful!

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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 280 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