Review of Electricity Market Arrangement Second Consultation

Response from Thriving Places Cohort

7th May 2024

The views and opinions expressed in this consultation response are those collated from and curated by Regen on behalf of the Thriving Places Cohort, a collection of 52 local authorities, partners and communities working to deliver net zero projects in their local areas funded by Innovate UK as part of the Net Zero Living Thriving Places programme.

Innovate UK does not endorse the content of this consultation response and the document does not reflect the opinions or views of Innovate UK or its affiliate organisations.

About Thriving Places

Thriving Places is part of the Innovate UK Net Zero Living programme. The programme provides support to local authorities, their partners and communities to overcome non-technical systemic barriers to the scaling and adoption of net zero solutions.

Within the programme there are 52 local authorities, the 'Thriving Places Cohort', at various stages in the development and delivery of their local net zero plans.
This consultation response brings together views and aspirations of the cohort on the areas related to energy markets and REMA.

This response has been supported and curated by Regen, which provides expert support on policy and regulation to the Thriving Places Cohort as part of their Future Ready programme. The views in this were collected during REMA policy workshop facilitated by Regen.

About Regen

Regen provides evidence-led insight and advice to transform the UK's energy system for a net zero future. We know that a transformation of this scale will require engaging the whole of society in a just transition. We have 20 years' experience in transforming the energy system for net zero and delivering expert advice and market insight.

If you have any questions or feedback about this consultation response, please email thrivingplaces@regen.co.uk

Introduction and background

Great Britain's (GB) electricity system is centred around markets, serving as a driving force behind competition and innovation for consumer benefit. These markets generate economic price signals for decision-making on electricity supply and demand, investment in new generating capacity and flexibility, and whole system efficiency.

There are however, downsides to a market approach. Markets are price driven, but the outcome of these price signals is very specific to places, creating winners and losers in the energy transition. Therefore, REMA has the potential to significantly impact local authorities' ability to deliver on local energy and place-based net zero ambitions. This response is focused on ensuring that local authority voices and experiences are reflected in the development of this important policy area.

Local authorities have several roles in the energy markets, however not many of these are reflected or referenced in the REMA consultation. Currently, REMA does not offer significant reference or support to local and place-based aspirations to build a new decarbonised energy system from the bottom up rather than the top down.

The energy market also views people as customers and consumers, rather than from a local authority lens as citizens and communities. As we rise to the net zero challenge, it will be increasingly important to see people as citizens of local areas - to be engaged in, and benefit from, a net zero transition rather than simply energy consumers who receive a bill. This approach is more likely to deliver higher societal benefits but also produce potentially more effective outcomes for the energy system in areas such as demand side response.

We would recommend that the REMA team engage more specifically with local authorities and their place aspirations as they develop the final proposals for market reform. The Thriving Places Programme offers an opportunity to do this.

There are four clear local authority roles in the energy system and all have a clear relationship with REMA and wholesale markets:

Local authorities as market participants

- Local authorities are both large consumers of electricity and, increasingly, renewable energy developers, along with their local communities. It is important that the aspiration of these smaller locally owned generation with higher positive local impacts are also supported by REMA's changes.

- The consultation proposes to drop exploration of small-scale Contracts for Difference (CfD) in favour of Power Purchase Agreements (PPAs). However, while the consultation highlights UK government's interest in PPAs, it concludes that there are no actions for government to take to further support the development of the PPA market. However, we believe that there are actions the UK government should take to support local actors to participate in these markets.

- Our cohort has faced challenges when negotiating PPAs as local authorities. As non-experts participating in a complex system, they are at significant disadvantage and lack the market knowledge and diversity that large energy companies use to effectively manage PPA price risk.

- There is also a need to support local authorities to better understand the commercial arrangements behind the PPA market and to support the development of innovative new energy supply products and services. Further support for PPAs, including underwriting, may be needed to enable actors such as local authorities or community energy groups to participate effectively in PPAs.

- However, it is also likely that another approach for supporting small scale and local generation could be needed that bridges the gap between the Smart Export Guarantee and the CfD.

- Similarly, the concept of a national green power pool has been dropped, but there are opportunities to think about how local renewable pooling arrangements, supported or initiated by local authorities, could be integrated into the wholesale market and drive local renewables and flexible demand.

The role of local planning authorities

- Local authorities, in awarding planning permission, are a key decision maker when it comes to the location of energy demand, generation and network infrastructure in their places.

- REMA's aspiration about locational and zonal charging looks through the lens of network capacity, but also needs to also be grounded in the realities and local politics of planning.

- Local authorities, through the Thriving Places cohort, are well placed to help government understand how these issues should be addressed in wholesale market design.

Strategic place shapers setting local net zero ambitions

- Over the past few years there has been a growing focus on a strategic planning approach for the energy system at national and local level. Such approaches will sit alongside wholesale electricity markets in providing strong signals on what assets are needed and where they should be built. However, the consultation is largely silent on the implications of a strategically planned system for our energy system.

- Many local authorities have set high ambitions for their places to deliver, and benefit from, net zero including renewable energy targets or technology goals through local area energy plans (LAEPs) and other place-based decarbonisation strategies.

- It is important that a market-based approach, where pricing is potentially linked to existing or historic energy network infrastructure, can support these new local and place-based ambitions and link effectively to the new role of the Regional Energy System Planners.

Developing local energy systems to deliver net zero

- As well as individual projects in Net Zero Living Thriving Places cohort, many local areas and communities are exploring options to localise the energy markets so they can benefit directly from and help shape the transition in their areas.

- For many communities and local stakeholders, the concept of “place” is not about managing network constraints but is instead about the ability to generate and supply energy locally, and to retain a greater degree of ownership and economic and social benefits within a place. At the moment REMA does not address this this aspect of consumer value.

- Local energy projects often involve developing complex and interlinked schemes that combine supply and demand with flexibility through batteries and demand-side response – naturally operating flexibly to maximise local benefits and deliver for communities.

- The second REMA consultation has dropped further explorations into Local Markets, but we would like to see further REMA proposals and policies that provide incentives and support the development of these ‘bottom up’ smart local energy systems.

Below are the specific questions on which the Thriving Places cohort would like to present views.

Challenge 1: Passing the value of a renewables-based system to consumers

REMA question 1: What growth potential do you consider the CPPA market to have?
REMA question 2: How might a larger CPPA market spread the risks and benefits of variable renewable energy across consumers?

Local authorities, as both consumers and developers of electricity, are in a unique position as they could be entering a PPA agreement on both sides, or even with themselves as a supplier if they are looking to connect their own generation with local demand. The PPA market is growing and could create further opportunities for local authorities and other public bodies to buy energy from local generators under long term contracts.

However, although we recognise the value and benefits of PPAs to support both new generation and manage price risk in the market, the experience of the cohort is that negotiating a PPA as a local authority both as a purchaser and seller of electricity is challenging.

Feedback from cohort members at a recent workshop noted issues include:

- Issues in developing smart local energy systems in dealing with the diversity of PPA lengths and contract types – being a barrier to bring different technologies together in local systems.
- Lack of market intelligence or having to pay large amounts for it. As non-experts participating in a complex system, local authorities are at significant disadvantage and lack the market knowledge and diversity that large energy companies use to effectively manage PPA price risk.
- Significant difficulty in taking on a long term PPA contract and maintaining those contracts over time in a local authority when resources and competencies in these areas are limited.

Many local authorities are also already locked into energy contracts through central procurement services. Additional longer term PPA and sleeving agreements are complex to negotiate or add to these.

This suggests that if the PPA market is the primary mechanism, there will need to be more expert support for local actors to better understand the commercial arrangements behind the PPA market.

There would also be value in other supported developments such as standardisation of contracts and underwriting, to enable actors such as local authorities or community energy groups to participate effectively in PPAs as well as participate in the development of innovative new local energy supply products and services.

It is likely, that given the issues with PPA for local actors, another approach for supporting small scale generation will be needed which bridges the gap between CfD and Smart Export Guarantee.

As well as direct contracts through PPAs, local authorities are also interested in how they can initiate other support for local renewables and flexible demand on a wider local basis. However, it was noted that several of the cohort had experience with Energy Service Companies (ESCO's) approaches and other 'white label' local suppliers that had failed, or weren't feasible, due to the small size and barriers involved with being a local or niche supplier.

National Green Power Pools have now been discounted in REMA, but we would encourage the DESNZ team to think more about how local renewable pooling arrangements, supported or initiated by local authorities, could be integrated into the wholesale market.

These contracts could be viewed as an extension of the growing PPA market by allowing multiple organisations to participate where they might struggle to procure a PPA directly, due a lack of sufficient financial backing or resource.

Regen has previously worked on developing structures similar to the pool concept, such as Bristol City Council's 'sleeving pool' and other local supply models, and in time such pools could become a useful tool to allow local authorities to support the development of local and community-led renewable energy projects.

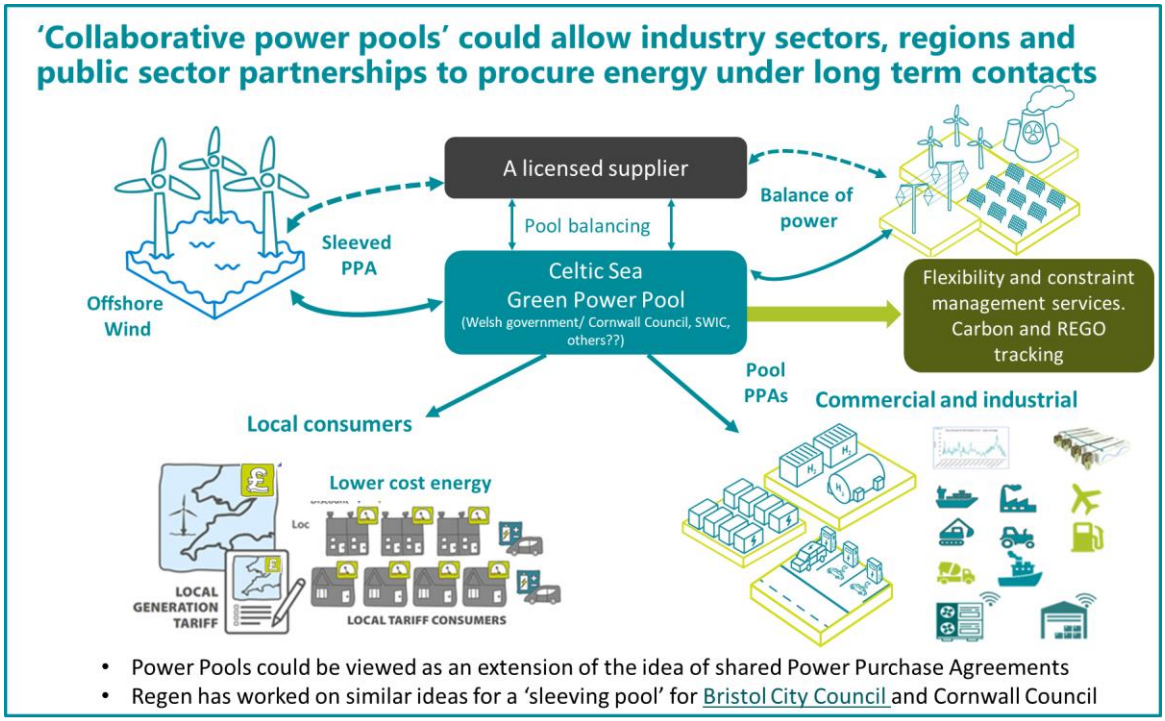

Figure 1 Example of an innovative power pool for the Celtic Sea area

Challenge 2: Investing to create a renewables-based system at pace

REMA Question 4: Have we correctly identified the challenges for the future of the CfD? Please consider whether any challenges are particularly crucial to address.

The cohort particularly support the further discussion of non-price factors in a CfD. Many local areas have aspirations for renewable generation which will bring local economic development including jobs, associated taxes and wider community benefits.

We would note that the lowest overall system cost might not be compatible with delivering the highest possible local or national social, economic and environmental benefit to communities across the UK. There needs to be balance between these aspirations, or the benefits of the transition will be concentrated in particular areas, leaving others behind.

Strategic planning approaches will be critical at balancing these aspirations with coordinating development nationally and locally. REMA needs to recognise and enable the coordination of national (e.g. the Strategic Spatial Energy Plan (SSEP)), regional (e.g. the Regional Energy Strategic Planners (RESP)) and local (e.g. LAEPs and Local Heat and Energy Efficiency Strategies (LHEES)) strategic planning

approaches and significantly de-risk investment if the local policies are already in place and supportive of developments.

Local authorities would like therefore the future of CfD design to reflect both non-price factors and explicitly reflect regional and local aspirations.

There is an opportunity for the RESP processes to consistently set regional renewable generation targets along with initiating local processes of value creation such as supply chain, jobs and community benefits – and these targets should then be reflected in developing regional CfD allocations.

Challenge 3: transitioning away from an unabated gas-based system to a flexible, resilient, decarbonised electricity system

REMA question 20. Do you agree that an Optimised CM and the work set out in Appendix 3 will sufficiently incentivise the deployment and utilisation of distributed low carbon flexibility? If not, please set out what further measures would be needed.

Although there is a role for markets in demand reduction and demand side response, local authorities and communities could be key in achieving significant demand side response in the areas where it is most needed.

Smart meters are a critical facilitator and one cohort member noted that in their island community they currently lack smart meters and suppliers were not anticipating fitting these for several years, despite the potential benefits to the community of balancing demand and generation.

Once the technology is in place, behaviour evidence suggests that we do not always act as rational economic actors and that our decision-making motives are diverse and complex, and often related to social and geographical allegiances.

For example, there could be an opportunity to incentivise geographical collective action (such as DSR to manage constraints) for the financial benefit of a local institution (e.g. raising funds for a local school, hospital, community organisation). Behavioural studies suggest this could have a larger and more targeted impact than a consumer acting for their own individual, often quite small, financial benefit.

We would encourage REMA to consider how more of these community-based actions could better achieve energy system objectives of local flexibility, and the role that a local authority or community organisations could play in exploring these approaches.

REMA Question 21. Do you agree that our combined proposed package of reforms (bespoke mechanisms for certain low carbon flexible technologies, sharper operational signals, and an Optimised Capacity Market) is sufficient to incentivise flexibility in the long-term? Please set out any other necessary measures.

We note that the REMA consultation highlights throughout the importance of smaller-scale renewables and distributed renewable energy generation and the societal benefits like engaging local communities in renewable energy projects, tackling fuel poverty by reducing energy bills and creating new jobs. However, there is little in the consultation at present that actively supports these objectives.

The aspirations of the cohort are many and varied, and notably most have aspirations for mixed technologies, renewables coupled with heat and transport electrification and targeting additional social benefits, such as just transition and reducing the cost of living. A number are specifically looking to create Smart Local Energy Systems (SLES), and others are linking up demand, generation and storage locally to meet their local demand and bring down the cost of energy and impact of network constraints.

These mixed systems are naturally complex but also flexible and responsive, delivering resilience and security of supply in novel ways. They could also reduce the reliance on local and national network infrastructure by matching demand better with availability of local generation.

Therefore, we welcome the aspiration in the consultation to continue to ensure wider access to flexibility markets which could provide important revenue for local schemes.

However, many of the reform options for CfD and Capacity Market focus on how large single generators behave once they are operational. Although this is clearly necessary, there is a question about whether orientating a market or markets around the behaviour of large single technology systems and generation is the only option. It risks prejudicing against or hindering these small scale and naturally mixed schemes which are likely to be more resilient and operating more beneficially for the system, and their communities, by default.

It is clearly difficult to create a market that meets the needs of both large, single vector generators and these mixed, complex and small-scale systems, the latter potentially therefore needs the REMA team to explore how these systems could be supported by a different set of policies and approach, which could be based on their size, ownership structures and location on the network.

Challenge 4: operating and optimising a renewables- based system, cost-effectively

REMA question 22. Do you agree with the key design choices we have identified in the consultation and in Appendix 4 for zonal pricing?

We note that in the first consultation there were proposals about granular locational wholesale pricing and reorientating the market towards the distribution network ('local markets'). In this consultation, there is the consideration of less granular zonal wholesale pricing, as well as a range of alternatives to locational pricing that would maintain a single national price – we welcome these explorations, and the cohort is clear about the ultimate need to make the future energy system more affordable for people.

However, a market-based zonal approach, where pricing is linked to existing constraints or historic energy network infrastructure will likely create both winners and losers in locations, potentially raising questions about fairness between the types of customers and the flexibility of their demand.

REMA's aspiration about locational and zonal charging looks through the lens of network capacity, but it is important this is also grounded in the realities and local politics of planning and planning permissions, the reality of which have partially created the issues we see today.

For many communities and local stakeholders, the concept of "place" is not about managing network constraints but is instead about the ability to generate and supply energy locally, and to retain a greater degree of ownership and economic benefits within a place. At the moment, REMA does not address this this aspect of consumer value.

Instead, we need these reforms to support these new local ambitions and link effectively to the new role of the RESP and their role in strategically planning distribution networks. There is a clear interaction between these two pieces of policy but with them taking very different approaches – market led – and strategic planning – could end up going in different directions.

There is a clear interaction between local aspirations for net zero and local policies on planning, and the aspirations of locational or zonal pricing, but these have not been well considered in REMA.

Local authorities, through the Thriving Places cohort, are well placed to help government understand how these issues should be addressed in wholesale market design.