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Towards resilience: Building energy systems with community at their heart

COVID-19 has brought into sharp focus the fragile state and deeply interconnected nature of the critical systems we rely on for our health and prosperity. Our energy system is a case in point; the pandemic has underscored that existing top-down, centralised models of energy supply and management are not a good fit for the future.

The energy system is a key driver of health and prosperity in the UK and it is undergoing enormous change as a result of new technological opportunities and as Britain seeks to meet its ambition of decarbonising its economy by 2050. On the road to Net Zero, we have a once in a generation opportunity to reshape our energy system in a way which could drive productivity and efficiency, create new jobs and local investment routes, help improve health and wellbeing, and tackle inequality - driving deeper social, as well as environmental, change.

So, as we attempt to 'build back better' from COVID whilst simultaneously rapidly decarbonising our economy, how can we accelerate the shift towards a more modern energy system that is greener, more flexible, affordable and resilient? How can we transition to a system better able to withstand future shocks, and one which involves and benefits communities more?

We sought the views of a range of voices within the current energy system from energy companies to grassroots organisations. This report summarises some of the key themes arising from those discussions and points to a potential path forward.

Key points

- Reaching the UK's ambitious goal of net zero emissions by 2050 will require a further huge expansion in renewable energy generation. At both a national and more local level and the contribution of community scale sources of supply should not be overlooked.
- COVID has shown the limitations of an overly centralised approach to decision making. This has highlighted that local authorities can often mobilise action more effectively at a community level if properly resourced and consulted.
- The first wave of UK decarbonisation was achieved without requiring high levels of public participation. The next stage of emission reduction will require widespread behaviour change. Trusted local community organisations, if properly funded, will need to be a critical part of creating necessary behaviour change to achieve the next stage of decarbonisation in the UK, as well as ensuring that the energy transition is an inclusive one.
- There is an absence of a community energy strategy which seeks to involve community organisation in local carbon reduction projects. Alongside the removal of programmes such as the feed-in-tariff, this has left community organisations without a clear route to market for locally owned and developed energy projects as significant regulatory barriers impeding innovation in creating new business models.
- Greater collaboration between energy companies and communities could create opportunities and support the growth of projects that would generate new streams of income. This would help to contribute to communities' economic resilience in the future.

Introduction

To reflect on the value of putting people and communities at the heart of the energy system transition, Forum for the Future led a series of conversations with organisations and individuals across the energy industry. We spoke with:

- Chris Blake, a founding director of Community Energy Wales and non-executive Director of Natural Resources Wales
- Syed Ahmed, chair of Community Energy London
- David Tudgey, project manager, Ambition Lawrence Weston, a Bristol-based community group and Locally Trusted Organisation for the Lawrence Weston Big Local
- Neil Donald, head of SSE Energy Solutions

Climate change and the community

1. Reaching the UK's ambitious goal of net zero emissions by 2050 will require a further huge expansion in renewable energy generation, at both a national and more local level and the contribution of community scale sources of supply should not be overlooked.

The UK has made impressive strides towards decarbonising its energy system, with over half of our electricity coming from renewable or low carbon sources in 2020.

However, to reach net zero further significant strides in energy efficiency must be made along with a huge expansion in renewable energy capacity, especially when factoring in the switch from petrol to electric cars. Our use of electric vehicles needs to grow from 230,000 today to 39 million by 2050.

In getting there, Chris Blake suggests that:

Policy makers should avoid approaches which seek to take an either-or approach to large vs small scale energy sources and adopt an “all of the above” strategy instead.

Chris points out that using price as the sole determinant of value overlooks the wider social benefits that stem from smaller scale schemes. For example, new procurement policies are required which consider social benefit as a key determinant of value for money.

The support that Ambition Lawrence Weston offered its residents during the pandemic is a great example of this social benefit funding staff to support a crowdfunding campaign to get money where it is most needed by encouraging people to contribute to its community crowd fund hosted by Ambition Lawrence Weston

2. COVID has shown the limitations of an overly centralised approach to decision making and highlighted that local authorities can often mobilise action more effectively at a local level if properly resourced and consulted.

As our cities and towns begin to accommodate millions of new energy technology installations from heat pumps to district heating networks, solar panels to electric vehicles, much greater local government leadership will be required to successfully achieve this.

Syed Ahmed has over 20 years of experience of working to promote a more local approach to clean energy development. As Chair of Community Energy London, he worked closely with the Greater London Authority to establish a Community Energy Fund which has supported over 50 local energy projects to get off the ground to date, with more currently being developed, that contribute to helping the Mayor meet his ambition of making London zero carbon neutral by 2030. He would like to see more local authorities adopt a similar approach.

For example, the success of the UK’s vaccine rollout when led by highly trusted local NHS partners shows the value in devolving resources and power to local decision makers. With over 300 local authorities having now declared a climate emergency, Syed would like to see greater responsibilities and resources for local authorities to enable them to develop programmes of action, which should include routes to build stronger partnerships with community energy organisations, in turn driving climate action by affording local people a greater ownership stake in the energy transition.

3. The first wave of UK decarbonisation was achieved without requiring high levels of public participation. As identified by the Committee on Climate Change, the next stage of emission reduction will require

widespread public behaviour change. Trusted local community organisations, if properly funded, could be a critical part of supporting the environment for this necessary behaviour change, which are significant and range from decarbonising how we heat our homes, a shift to EVs as well as ensuring that the energy transition is an inclusive one.

Big Local partnerships have demonstrated that the messenger is just as important as the message when it comes to driving uptake of low carbon measures in homes. Trusted and well known by their local community, members of the Bradford Big Local group have been able to raise awareness of the benefits of energy efficiency measures with local residents and then support them to access Government grant schemes to implement recommended measures. The key to their approach was to integrate their energy efficiency advice sessions with existing community events they ran such as coffee mornings or cinema screenings to build trust and rapport.

Neil Donald of SSE agrees that:

A local approach is fundamental and points to the Green Homes Grant as evidence that centralised approaches to the roll out of energy efficiency measures and green technologies can be less effective.

Private homeowners need schemes that are administratively simple and must be confident that good quality installers are available locally.

He points to the more comprehensive, whole system approach being adopted in Scotland as a suggested way forward. Under Scottish law, local authorities are under a legal obligation to improve the energy efficiency of their building stock creating a stronger impetus for action.

4. The absence of a community energy strategy, seeking to involve community organisation in local carbon reduction projects, alongside the removal of programmes such as the feed-in-tariff, has left community organisations without a clear route to market for locally owned and developed energy projects as significant regulatory barriers impeding innovation in creating new business models.

Community group Ambition Lawrence Weston have just been awarded planning permission to build the largest onshore wind turbine in England.

Once installed, it will produce enough low carbon electricity to power 3,500 homes and make CO2 savings of 1,965 tons every year - as well as generating an income stream to be reinvested in the local community. It has taken five years and the tenacity of the members of the group to get to this point and the removal of the feed-in-tariff almost dealt the project a fatal blow.

David Tudgey, of Lawrence Weston suggests that changes to existing complex energy market regulation are needed as well as smart meter ICT infrastructure roll out for a democratic Smart Local Energy System that builds local economic resilience to emerge. Changes such as no

longer requiring local community renewable energy generators to pay non-commodity charges as part of their supply arrangements and allowing them to sell their energy directly to local domestic customers (who are also rewarded for local balancing with settlement taking place at the smart meter) would provide a new business model, reigniting the growth of the community energy sector and ensure a more inclusive, just transition.

5. Greater scope exists for energy companies and communities to work together in collaboration and could drive innovation that would deliver deeper social and environmental benefits.

In Wales, Chris Blake had early involvement in Energy Local, an innovative project, working within the constraints of the existing system to enable households to club together and show they are using local, clean power when it is generated. Working with Co-op Energy, an existing energy supplier, they agreed to a better price for local generators and reduced their bills. It reflects the true value of local renewables, keeping more money local and demonstrates ways in which incumbent energy suppliers could help unlock innovative new models of supply which deliver greater benefits back to local communities.

These projects give a glimpse of a future energy system where energy companies work more closely with local community groups in ways which increase community wealth, agency and regeneration - reducing emissions whilst also creating thriving, resilient places.

What next?

In the most trying of circumstances, our responses to the pandemic have highlighted the incredible value of local knowledge, trusted relationships and service providers already embedded in neighbourhoods across the country. For our communities to thrive in a climate changing world they must also be given greater ownership and agency - not just over the process of the transition - but of the assets and benefits that arise from it. These conversations drew out certain themes and ideas as to how this could be achieved, such as:

- regulatory changes that support rather than undermine or prevent our nationwide movement of community-led energy enterprises from growing
- devolving more responsibility and resources to local authorities to enable a locally driven approach to energy that gives more voice to people
- encouraging greater collaboration between energy companies and the communities they serve, because there remains great space for innovation and new models that can work for everyone locally.

To achieve the ambitious net zero goals, we have rightly set for ourselves as a country, we recognise the important role that policy, regulation, finance and industry has to play. But the transition has to be a collective endeavour, which also means creating a bigger space for communities and their key partners to explore, innovate and develop energy solutions that work for them.

Further reading and resources

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About Local Trust

Local Trust is a place-based funder supporting communities to transform and improve their lives and the places where they live. We believe there is a need to put more power, resources and decision-making into the hands of local communities, to enable them to transform and improve their lives and the places in which they live.

We do this by trusting local people. Our aims are to demonstrate the value of long term, unconditional, resident-led funding through our work supporting local communities make their areas better places to live, and to draw on the learning from our work to promote a wider transformation in the way policy makers, funders and others engage with communities and place

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