

Energy Systems Catapult: Evidence Submission

Findings of the Report of Climate Assembly UK – BEIS Select Committee Inquiry

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About Energy Systems Catapult

Energy Systems Catapult (ESC) was set up to accelerate the transformation of the UK's energy system and ensure UK businesses and consumers capture the opportunities of clean growth. The Catapult is an independent, not-for-profit technology and innovation centre that bridges the gap between industry, government, academia and research. We take a whole-system view of the energy sector, helping us to identify and address innovation priorities and market barriers, in order to decarbonise the energy system at the lowest cost.

We welcome the opportunity to comment on the findings of the report of Climate Assembly UK inquiry.

Has Climate Assembly UK (both its process and recommendations) been helpful to your work (or the work of your organisation), and if so, how?

ESC sees the Climate Assembly as a great first step, as it has helped raise the importance of ensuring that Net Zero works for people, as well as highlighting that citizens are broadly on board with actions being taken.

However, there is a risk that the report can mislead the sector if interpreted that the only or best way is through deliberative discussion. Deliberative discussion is certainly important, but it is only one of many techniques that should be considered moving forward.

Great care must be taken to ensure that Climate Assemblies are not seen as being the end of the conversation with citizens. Policymakers need to ensure a continuous process of engagement with citizens throughout the transition to Net Zero. As is detailed below, continued engagement is essential in order to ensure that policy approaches are adapted in the light of consumers' views and experience as they gain more exposure to the changes and new technologies required to deliver Net Zero.

What would a good response to Climate Assembly UK from the Government look like? What would a good response from Parliament look like?

Ensuring follow-on impact evaluation:

One of the Assembly's 25 principles for the path to net zero was "Regular independent checks on progress." Given the government's current approach on monitoring and evaluating net zero policies, we feel that the Assembly's recommendation for regular independent checks on progress is prudent. As the National Audit Office recently highlighted in its *Achieving Net Zero* report, BEIS recognises it needs to do more to establish monitoring arrangements to track progress towards net zero as "there is currently no process for monitoring the progress of policies on a more regular basis."¹ Clearly the Committee on Climate Change has a role here, but this needs to be bolstered by stronger progress tracking within government of whether policies and interventions are achieving emissions reductions at the necessary pace, enabling departments to act early if things go off track.

A good response from Government and Parliament to the Climate Assembly report would be for them to evaluate where the Climate Assembly UK's recommendations have had an impact on decisions and actions. This could inform the design of future initiatives involving the public, and ensure their processes and recommendations deliver greater value.

Move beyond deliberative approaches to include consumer experiences:

It is also important that government continues to involve the public in the decisions that now need to be taken but to do this in a range of ways, rather than relying on deliberative approaches alone.

Deliberative discussion can be useful when dealing with some of the big issues where we need to reach consensus on what is fair such as: how to cut emissions from flying; how the costs of network infrastructure should be split; how to help those who cannot afford to pay so that everyone can enjoy a net zero future.

In order to enhance the involvement of the public in decision making, it is important to give people *experience* of the things they are being asked to deliberate on, rather than just talking about them. If the UK's brilliant innovators are to reap the rewards of the switch to Net Zero, we need to ensure that low carbon solutions developed are ones that people actually want and will actually use. In order to do this, it is important that, where possible, we try to use markets to discover what people like/respond to as opposed to simply holding discussions.

This will assist in ensuring that policy decisions can be driven by real behaviour on revealed preferences, allowing markets and communities to reveal over time the path consumers and citizens prefer to take to get to net zero, as opposed to top down prescription. That means testing and learning in the real world. Environments such as the Catapult's **Living Lab** allows businesses large and small to test out their new ideas quickly and with rich consumer

¹ <https://www.nao.org.uk/wp-content/uploads/2020/12/Achieving-net-zero.pdf>

feedback.² Living Labs can help in learning how to make markets work by giving people experience of the things they are deliberating such as experience of new tariff designs, deep retrofits, adoption of technologies such as heat pumps, hydrogen boilers, EVs etc. These real environments involve gathering feedback from a range of consumers – vulnerable, low income, early majority - not just early adopters.

Crucially, Living Labs also allow policymakers and regulators to understand how to protect consumers as these smart new low carbon energy products/services evolve and to test new market arrangements or consumer protections to ensure that innovations benefit, not exploit, citizens on the way to Net Zero. This will also help ensure that regulation does not act as a barrier to the innovations we need, including innovations that will improve the lives of vulnerable consumers. Given that fairness was front and centre in the Assembly report, with the Climate Assembly placing “Fairness within the UK, including for the most vulnerable (affordability, jobs, UK regions, incentives and rewards) in actions, not just words” as the second most voted for principle for the path to net zero, we feel this is an area that is worth continued support and development.

Developing heat policy:

We are pleased to see the Climate Assembly recognising the difficulties of decarbonising heat for consumers as this is one of the biggest challenges for decarbonisation. Energy Systems Catapult conducted analysis for the Climate Change Committee on what it means to cut carbon in UK households by 80%, >90% and 100% (Net Zero) compared to 1990 level, across six activities: heating, transport, electricity, aviation, diet and waste.³ The analysis found that a net zero future will require a variety of lifestyle changes for transport, diet and air travel, with some of the most significant changes relating to how people heat their homes.

The Climate Assembly members’ recommendations on heat and energy use in the home show a desire for a strong push for action and emphasised the need for a “long-term strategy”. The Assembly noted that a majority of assembly members ‘strongly agreed’ or ‘agreed’ that the following policy measures on decarbonising in the home should be part of how the UK gets to net zero: Green mortgages; Carbon MOTs for houses; Government-backed loans; changes to VAT; and changing council tax or stamp duty.

To support action on the decarbonisation of buildings, ESC have laid out a proposed framework in its ‘**Six Steps to Zero Carbon Buildings**’⁴ which aims to create a coherent set of new planning processes, standards, obligations, subsidies and market incentives that can combine to drive action throughout the supply chain and highlights the need to make heat decarbonisation a shared responsibility, incentivising action across vectors and stakeholders. We are pleased to see that many of our proposals in the Six Steps align with the policy

² <https://es.catapult.org.uk/service-platforms/living-lab/>

³ <https://es.catapult.org.uk/reports/net-zero-living-carbon-free/>

⁴ <https://es.catapult.org.uk/comment/six-steps-to-zero-carbon-buildings/>

recommendations from the Assembly, including our **proposal to phase in carbon performance requirements across all buildings** (akin to a carbon performance 'MOT' for each building).

Local Area Energy Planning:

We are pleased to see that the Climate Assembly consistently emphasised their support for “Tailored solutions, enabling local authorities and other local organisations to choose solutions suited to their local areas, and householders to pick the options best for them.” When designing plans for an area to get to Net Zero, it is important to involve in the designing the people who actually live in the area to ensure that net zero plans are done *with* rather than simply *to* people. Climate Assemblies have made a great start, but it will also be critical to empower communities to learn what it means for them and have a voice in the decisions being made. There is huge potential to use data and the internet to help people understand what different paths to Net Zero might mean for them and to democratise major decisions that each area must make about topics such as: which energy networks to invest in; how much to insulate homes or increase supplies; where to put public EV charging infrastructure etc.

In order to transform these wishes for tailored solutions into action, we believe that **Local Area Energy Planning (LAEP)** can and should play a key role in ensuring local authorities can choose solutions appropriate to their local areas. As developed and piloted by ESC, LAEP is a whole systems approach to identify low-cost decarbonisation options for local areas that considers multiple energy vectors and their potential interactions in order to understand different options for transforming local energy systems.⁵ LAEP is also an integral part of the Six Steps to Zero Carbon Buildings framework highlighted earlier.

LAEP is a decision support process relying on enhanced stakeholder engagement, modelling techniques and data in order to explore a range of future local energy scenarios to decarbonise places cost-effectively. Partnership with local stakeholders includes local authorities, energy infrastructure providers, local businesses, and communities. The primary objective of LAEP is to assist localities to envision and plan for what a Net Zero future can mean for their area as a whole, ensuring coordinated decision-making across multiple vectors such as EV charging, heat network deployment, electrification of heating and hydrogen development. This is important to prevent siloed, short-term thinking which could lead to significant inefficiencies and coordination challenges for local areas in the long run.

Given the strong support for local, tailored solutions from the Assembly, the Government should put in place policies that support the rollout of LAEP across the UK.

⁵ <https://es.catapult.org.uk/reports/local-area-energy-planning-the-method/>