

Flexible and responsive energy retail markets

BEAMA response

BEAMA is the UK trade association for manufacturers and providers of energy infrastructure and systems. We represent more than 200 companies, from start-ups to SMEs to large multinationals. Our members provide HVAC products, EV infrastructure, electrical transmission and distribution equipment, energy storage and flexibility assets in networks and the built environment, to support a safe and secure low carbon energy system. We are a significant part of the UK electrical manufacturing sector and represent an industry with a turnover of £12.6billion, exports to a value of £4.2billion and employ a works force of 89,500 in the UK.

Overall BEAMA is disappointed to see BEIS and Ofgem suggest that the key aspects of the current regulatory system will remain unchanged in the medium term and that more radical change to the regulatory framework will be deferred for a longer-term reform of the market. As an industry we have been discussing the need for regulatory reform with BEIS and Ofgem for a number of years now, and we believe it is commonly recognised the regulatory framework that exists today is not suitable for a future DSR and flexibility market. While new service providers are working to ‘fudge’ their offerings into the current framework we believe the ambition set out by BEIS and Ofgem needs to be far greater than what is presented in this consultation. This is especially so if we are to target the mass rollout of low carbon heating and hot water systems and EV charging for UK customers. Protecting consumers in the short term may not result in their protection long term from the impact of climate change and cost to their energy bills from latter interventions in the market. There will be a policy cost to this, and customer bills will go up¹. The sooner we introduce a more cost- and carbon-reflective pricing system the sooner new technologies and business models can enter the market to effectively tackle the decarbonisation of the energy system and UK housing stock.

We therefore support the need to bring forward the proposed modular approach which would ensure suppliers are regulated on the service they provide. We strongly support the need to ensure regulators, including Ofgem uphold legal responsibility to deliver the net-zero by 2050 emissions target. This would embed our need to combat climate change and the need to radically innovate our energy services to meet the ambitious target now set. Without taking responsibility for the long-term 2050 target and therefore energy system reform, regulatory change as outlined in this consultation will always default to short to medium term action.

BEAMA members recently signed a commitment to the 2050 net-zero target², outlining industry’s commitment to reduce their own footprint but also supporting the phase out of high carbon fossil fuel technologies and a move to mass rollout of low carbon heat and hot water in existing and new build properties. The challenge identified in the BEAMA publication – ‘net-zero by design’ – is scale of deployment. The current landscape for low carbon technology take-up is slow, and investment in UK markets for heat pumps, storage and associated technologies is wavering. Immediate action is needed by government to ensure long-term clarity is provided for the UK energy sector to de-risk investment in

¹ Committee on Climate Change Net Zero report 2019

² BEAMA net-zero by design 2019 <http://www.beama.org.uk/resource-library/net-zero-by-design.html>

the supply chain needed to drive net-zero and ensure retention of UK growth opportunities stemming from net-zero. New innovative energy services will be essential to drive net-zero, especially for the retrofit required across existing housing stocks (e.g. 17million homes by 2030 require energy efficiency measures, heat pumps to be installed in 2.3million homes by 2030³). The biggest barrier to the retrofit of existing housing stocks is upfront cost, and it will be new energy services and DSR that will ensure this remains commercially viable for consumers, and businesses. While it may be feasible to fit new licencing into the existing regime for new services, it will always limit commercial viability of potentially more innovative services. Opening the system up to a modular approach sooner will enable more flexibility and allow the sector to innovate while maintaining the stringent oversight of Ofgem as a regulator. Companies are unlikely to invest in innovations that at the moment won't be commercially viable under the existing regulatory framework. We therefore believe moving to the modular approach will help drive more R&D investment into the UK.

The Committee on Climate Change state that energy efficiency retrofit of 29 million existing homes across the UK should be a national infrastructure priority⁴, and this needs to be reflected in the ambition to reform regulation to enable the market to innovate to its full potential. It is not feasible to anticipate all new services that may enter the market in the coming 10 years, certainly with the move to retrofit nearly all existing housing in the UK industry will come forward with new options. The 'energy as a service model' backed by the Energy Systems Catapult we see as vital to delivering the retrofit of UK housing.

BEAMA intends to work closely with the catapult to work through options for energy as a service models- including the agreements between manufacturers and service providers for asset leasing, and provision of high value assets with a service contract (e.g. heating system, EV charge point). We believe this can be worked through and there are many lessons to be learnt from smart metering and the role of meter asset providers in the market. The ownership of an asset, if not with the consumer, doesn't necessarily have to be with the service provider, and consumers could be allowed to switch tariffs or services, while maintaining the contract for the assets provided originally⁵.

BEAMA supports the need for the temporary price cap to be reviewed annually. Variable pricing will be an important factor in decarbonising UK housing and driving the uptake of low carbon electric heat and hot water storage. The commercial viability of low carbon heating and hot water is dependent on creating a viable DSR market within which consumers can gain an attractive payback for their upfront investment. A carbon price for heat is needed, and we need to ensure energy prices (gas and electricity) are set according to their carbon intensity. This is at the core of the UKs ability to transition to net-zero.

We have answered a number of the specific questions set out in this consultation. Those questions we have missed are either not within our scope as an organisation or they have missed to avoid duplication of our key points.

³ Committee on Climate Change Net Zero - Technical Report 2019

⁴ Committee on Climate Change Net Zero report 2019

⁵ BEAMA net- zero by design, 2019 [http://www.beama.org.uk/resource-library/netzero-by-design.html](http://www.beama.org.uk/resource-library/net-zero-by-design.html)

1. Do we agree with Ofgem and BEIS vision for the future energy retail market, the outcomes we are seeking to achieve and our characterisation of the key challenges we need to overcome.

Broadly we agree with the Ofgem and BEIS assessment that we need to reform the current retail market in order to meet the 2050 net zero target. We have recently advocated for Ofgem, and all regulators, to have a responsibility for net-zero in regulatory planning and reform. To this end, longer term strategies are needed, and we believe this needs to extend to at least 2030 and therefore set a clear trajectory for the market. Deferring regulatory reform for the retail market is not conducive of ensuring our net-zero target can be met through innovative energy services. Energy services will be key in driving the uptake of low carbon technologies in buildings Vs current high car fuel technologies using gas or oil. Price is the major barrier to take up of low carbon electric heating and hot water today⁶ and this must be addressed through regulatory reform of the retail markets.

BEAMA support any reform that will enable variable pricing that is reflective of system costs and carbon in the market - this is the key to decarbonising and enabling innovation in the market. A clear timeframe for reform to enable this needs to be set now.

2. Are incremental changes to regulation sufficient to support the energy transition and protect consumers? Or does this require a more fundamental reform, such as moving to module regulation?

As highlighted in the introductory comments by BEAMA, we believe more fundamental reform is needed, even if this is to happen in incremental steps, those steps need to clearly marked out now, in order to provide absolute market clarity for industry. BEAMAs net-zero by design report explains the current investment issues in our sector, and these can only be alleviated and investment de-risked if market and regulatory clarity is provided. We need to know the payback for customers investing in low carbon heat, hot water, electric vehicle infrastructure and storage, and we need to know the market framework within which new services can be introduced to help finance the retrofit of UK homes, therefore determining the commercial viability of net-zero.

Opening the regulatory system to a modular approach will enable businesses to innovate and create the market services we need, fixing the existing regulatory framework for the medium term will deter this much needed innovation. We can not assume to know all the services available to the market today that could drive the transition to net-zero, but should create an environment that enables innovators to come forward with new options.

3. How could the delivery burden on suppliers from ECO be reduced, for example through the introduction of a buyout mechanism

Overall BEAMA support the need for reform of ECO. While we support the need to ensure the costs of ECO are fairly distributed, our concern would be any changes, especially opt out options for suppliers risks affecting the delivery of energy efficiency measures into the market. Already ECO needs to be closely looked at as a key mechanism for driving further uptake in energy efficiency in buildings as well as the decarbonisation of UK housing stock. In BEAMA's recent net zero by design report we outline the problems caused through ECO in the removal of existing hot water storage assets in buildings, therefore limiting future scope for decarbonisation and a move to electric heat and hot water. So while the costs and contractual arrangements for suppliers are being reviewed the measures being offered through ECO

⁶ BEAMA net- zero by design, 2019 [http://www.beama.org.uk/resource-library/netzero-by-design.html](http://www.beama.org.uk/resource-library/net-zero-by-design.html)

should also be addressed – to better enable low carbon technology deployment in homes (including smart controls and hot water storage). We know energy efficiency in buildings will go hand in hand in scaling up deployment of technologies like heat pumps. For low carbon technologies for heat and hot water to effectively work they need well insulated properties, this brings down the size of required systems (10kw to 3kw heat pump), therefore the cost to the consumer, and will create economies of scale in the supply chain. Any schemes driving energy efficiency measures should be aligned with future retrofit schemes for low carbon heating and hot water.

4. Do you agree that now is not the time to make further changes on system and network cost recovery, metering and access to data as part of this retail market review?

We would agree now is not a good time to introduce reform associated with smart metering as it is essential the suppliers are able to continue the rollout of smart metering with minimal disruption, and that the rollout is complete.

Given the delay in the rollout of meters to all customers, BEAMA strongly emphasises the need to ensure all GB residences and small businesses receive a smart meter. This will entail extending the smart metering mandate within energy supply licence conditions after 2020 if the rollout is not completed by then. Installation of a smart meter and access to near real time energy use and tariff information is essential for consumers in the future to have fair access to variable pricing and innovative energy services. This may also remove the need for the current price cap. Consumer access to energy data has proven benefits for energy efficiency and decarbonisation and is also likely to be essential for consumers wishing to engage in smart electric vehicle charging, microgeneration and the export of energy to the grid through the Smart Export Guarantee, Vehicle to Grid services etc.

The Government should prioritise the successful completion of the smart metering rollout as an essential enabler of the new markets and innovation necessary for the transition to a net-zero carbon economy, and then review what needs to be done to maximise the value and benefits of the rollout.