

BEAMA response to Ofgem consultation on 'DNO Low Carbon Technology - Energy Efficiency role in ED3'

Response type: Organisational

Organisation: BEAMA Ltd

Organisation type: Trade association for manufacturers of electrical products

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Q1. Should DNOs play a role in co-ordinating and supporting a cost-effective energy transition through improved planning and supporting/directing targeted delivery? How can they help make the transition more efficient and affordable for everyone, and do they have a role in supporting lower-income households?

As a manufacturers' association, we do not have full insight into the capacity and capabilities of DNOs to deliver the specific tasks set out in this call for evidence. However, we do approve of the principles of:

- Recognising any failures in LCT deployment to date
- Considering better delivery models (noting that multiple models will be needed)
- Targeting specific segments including through a regional approach
- Improved multi-directional data sharing and coordination between central Government, the regulator, the system operator, network owners/operators and the supply chain

Outcomes we would like to see are:

- Improved takeup of LCTs
- Better visibility of demand for the supply chain
- More organic growth in demand for LCTs in addition to deployment that results from direct financial support – this will rely on some measures outside of the full control of DNOs or Ofgem including:
 - Policy measures to address the cost of electricity
 - Further development of the advice and delivery systems promised in the Warm Homes Plan
 - Better recognition and specification of the full range of suitable electrification technologies, including through completion of the Home Energy Model development, EPC format changes and the Smart Secure Electricity System programme
 - Preparation of a workforce able to deliver the transition

Taking the principles we support and desired outcomes into account, we can certainly see the benefit of a role for DNOs in supporting the transition, alongside other models. However, we do not believe DNOs can achieve this in a vacuum. Targeting segments and the clustering of LCT deployment to work hand in hand with infrastructure investment for distribution networks will require working alongside regional structures incorporating local authorities who understand the housing stock, are trusted data holders and have a track record of engaging with tenants across multiple tenure types.

In a disaggregated and poorly coordinated market we would continue to have an increasing amount of load impacting technology in and around the building but be blind to the requirements to reinforce the network; similarly, we would have the TSOs and DSOs proposing business plans for reinforcement with no real understanding of what is being connected.

Q2. Do you agree with the overall rationale and scope of 'Enhanced Co-ordination'?

Yes. Please see an extract from our [Electrification by Design](#) report published Q4 2017:

Many of the essential ingredients for encouraging the electrification of heat and transport for consumers already exist. There are price control structures for asset investment, incentives and subsidy schemes, a building regulations framework, wholly or partially mature technologies that carry one or all of energy efficiency, carbon abatement, demand response, improved air quality benefits, and an enabling smart metering programme. What is missing is the catalyst for making them all work together, along with an acknowledgment of the barriers to serious progress towards a decarbonised future.

That catalyst must achieve:

- *a level of targeted ambition that is not dependent on a 'scatter-gun' approach*
- *appropriate bundling of finance and investment instruments that can accelerate technology rollout and capitalise on the fact that there are firm links between the value of energy efficiency, flexibility drivers such as DSR, and asset planning and investment*
- *associated co-ordination of market enablers through collaboration between the technology supply chain, energy service providers, network operators, finance providers and local authorities capacity building for the supply chain linked to zonal planning and deployment targets and an associated skills development programme*
- *advice about energy measures and services that best reflect the needs of a designated zone based on building stock, available fuels, energy system infrastructure planning and finance availability to help equip dwellings with the necessary technology*
- *a planning and regulatory enforcement regime that satisfies a methodology for designing an appropriate energy zone (for new and existing buildings)*

This is not a small challenge, and it strays beyond the national policy, regulatory and institutional structures we have today. The challenge requires a level of market design through collaborative working that is regional in nature. In 2013, BEAMA first published a

brief paper promoting the benefits of pursuing a zone approach to promote heat pumps. Now, in 2017, we further endorse this approach but this time acknowledge the role that can be played by energy storage in networks and buildings, connected homes solutions and EVs.

A well-considered and sustainable approach to electrification could be found by considering a zone as analogous to a micro grid, with the ability to determine its own supply and demand constraints and ensure that the correct balance of flexibility enabling technology is specified.

Q6. What are your views on the Working with Local Authorities and others proposals we have set out above? What if any, would be the key elements of this? Are you aware of particular entities who would benefit from such advice?

Please see response to questions 1 and 2

Q7. How could IDNOs support the proposals in this portion of the consultation? How could either private wire connected properties or license-exempt networks feature in these proposals?

IDNOs and ICPs build new connections for new properties, in some cases up to 10,000 in one zone. If new properties and new connections could be appropriately designed, incentivised and enabled in tandem with new approaches to energy with low carbon generation, heat, and transport supply then large sections of new demand could be catered for at design stage. As well as enabling and providing flexibility services across the connection boundary to DSOs, this regional approach to network building and energy distribution could ensure fit-for-purpose networks for changing consumer needs and an upgraded energy system.

The most cost-effective option for new build dwellings is a more robust network that can cope with the increased loads that electrification to defer reinforcement. Whilst this approach alone will not address the energy system's challenge in its entirety, it could address new sections of additional demand in a joined-up way. Here system resilience is even more important than system flexibility; smart solutions and technologies for EV load management for example will be better suited to retrospective applications or as an interim solution to defer reinforcement. Whilst this approach alone will not address the energy system's challenge in its entirety, it could address new sections of additional demand in a joined-up way.

Q9. Do you think if DNOs adopted the type of Expanded Role described above this would add value and support the rollout of LCTs and EE? Could this model provide an effective and viable way to deliver network and system benefits? If so, could this be achieved while also prioritising support for low-income households?

Yes, see responses to Qs 1 and 2.

We are not sure why low income households are specifically mentioned here. Low income schemes exist and any framework would need to incorporate the integration of Warm Homes funding, Warm Homes Agency advice support and quality assurance that should have equal priority across a range of tenure segments.

Q11. Do you have any views on the archetypes presented and their implications? Do you have any other approaches we should consider? Do you have any evidence on key components notably:

On the identification of suitable properties and consumer engagement: Would DNOs be well placed to proactively identify suitable properties and/or engage with consumers, or are there other actors better placed to perform these functions?

We are not aware of any specific capability in this area. In fact, we understand DNOs do not uniformly even know the power rating of each and every property in their catchment area, which has been a barrier to network upgrade investment.

The most logical delivery partner here would be local authorities as trusted data handlers.

On responsibility for installations: what are the risks and opportunities if DNO's were responsible for installations? What are the options for partnerships and how could different responsibilities offer better outcomes?

DNOs do not have a track record in this regard for downstream measures, except for various innovation funded programmes. It is most likely this would be co-ordinated by delivery partners at a regional level as it is outside of the core business scope for DNOs. The DNO benefit for involvement is enhanced capability for investment planning. Again, local authorities have a history of success in this regard through the HECA obligations and aligned work programmes. With funding drying up for this activity, it would make sense to ensure their capabilities attract sufficient funding to facilitate meaningful progress in building retrofit planning.