



Citizens Advice Scotland  
Broadside  
2 Powderhall Road  
Edinburgh, EH7 4GB

0131 550 1000  
CFUenergy@cas.org.uk  
[www.cas.org.uk](http://www.cas.org.uk)

## **CAS Response to the Economy, Energy and Fair Work Committee's Call for Views on Electric Vehicles and Locally Owned Energy**

**January 2020**

### **Who we are**

Scotland's Citizens Advice Network empowers people in every corner of Scotland through our local bureaux and national services by providing free, confidential, and independent advice. We use people's experiences from the frontline to influence policy and drive positive change. We are on the side of people in Scotland who need help, and we change lives for the better.

### **Summary**

Citizens Advice Scotland (CAS) welcomes the opportunity to respond to this consultation. As a note of interest, Citizens Advice Scotland was a member of the Short Life Working Group on the Local Energy Systems Policy Statement.

CAS acknowledges the central role that locally-owned energy and electric vehicles have to play in the transition to low carbon, in line with climate change targets but we emphasise the need to protect consumers in the transition from unaffordably high fuel bills, scams and lack of redress, especially those who are vulnerable to these changes.

This call for views articulates the interplay between the transition to low carbon in different sectors, showing that consumers are likely to be affected in multiple ways at the same time, forcing quite significant lifestyle changes in some instances. It is therefore imperative that consumers are put at the heart of the low carbon transition, in this case for their heating, energy and transport needs, to ensure success. This reinforces the case for a wide-ranging public awareness campaign around the changes being brought about by the transition to low carbon. The future, and especially cost of new technologies in these sectors is uncertain and the Scottish Government has a responsibility to ensure the cost doesn't fall upon those who are least able to pay. We call on the Scottish Government to use all levers available to protect against cost shocks, and to be cognisant of the fact that there will be particular

groups and communities who depend on elements to different degrees. For example, those in rural areas will be more reliant on cars for transport for longer distances, and therefore it's important that there is a good infrastructure of charging points in areas outside of cities.

## **Responses to Specific Questions:**

### **Electric Vehicles (EVs)**

#### **1. The impact of increasing numbers of EVs on electricity generation, transmission and distribution?**

Increasing numbers of EVs will inevitably lead to an increase in demand for electricity, as outlined in the background information within the consultation, which may put the balancing of the electricity network under strain if adequate preparation is not made. This may have direct implications for consumers, as strain on the network could impact the reliability of domestic energy supply, and people's ability to go about their daily lives as usual, as well as network costs and thus ultimately consumer fuel bills.

We know that Scottish consumers' highest priorities for their electricity distribution network are that it is – above all else – affordable, safe, and reliable<sup>1</sup>. We believe that there will be significant effort needed to ensure these priorities are grasped as the transition in the transport industry picks up speed.

#### **2. The role of EVs in balancing electricity transmission and distribution networks. Are new battery and grid technologies being adequately supported and rolled out to enable this?**

See response to question 1.

#### **3. Are enough and the right type of EV charging points delivering accessible charging, and keeping up with consumer demand?**

CAS is not aware as to whether there are sufficient EV charging points in Scotland to meet current demand and fulfil the immediate future demand, but point to evidence that as of August 2016, the ChargePlace Scotland network consisted of over 600 publicly available charge points, equating to over 1,200 charging bays. In addition, an additional 40 charge points were available through private charge point network operators.<sup>2</sup> Since then it is unclear at what rate the charging network has grown by, and whether it is adequate to meet consumer demand. A patchwork coverage of EV charging points must be avoided and so it's important that we have a nationwide strategy to link-up between major conurbations, busy roads like A9 corridor, and not forgetting rural areas that rely so heavily on cars. We

---

<sup>1</sup> Drawn from research prepared by Accent for Citizens Advice Scotland on Consumer Attitudes to Energy Networks in Scotland [unpublished at time of writing]

<sup>2</sup> <https://spice-spotlight.scot/2018/01/16/spice-enquiries-faq-electric-car-charging/>

urge for more data on this to be made publically available by the Scottish Government, so we can better understand whether consumer needs will be met.

CAS is supportive of both public and private efforts<sup>3</sup> to increase the network of EV charging points to help drive the uptake of EVs and plug-in hybrid vehicles. We are aware that the Scottish Government has undertaken several activities to support the EV transition over several years, such as providing funding via Home Energy Scotland for EV domestic charging points, and supporting localised uptake such as the Drive Dundee Electric project<sup>4</sup>. However, we believe that more is needed at the pace and scale necessary to reach the tipping point where costs come down and charging points are common.

CAS echoes the arguments made by colleagues in Citizens Advice England and Wales<sup>5</sup> in that the electric vehicle and energy sector should always put consumers at the heart of the design process as new methods for charging electric cars are developed. In particular, the report recommended that going forward, charging schemes should:

- protect customers in terms of providing guarantees;
- be easy to use and understand, and be available for those in areas of poor signal;
- be tailored to fit with different customer needs, particularly people with mobility needs, parents of young children and those living in remote areas, as well as for small businesses;
- allow customers control and the ability to set their preferences, and give users the information they need before signing up.

The report also suggested that further research will be required to explore energy consumers' attitudes towards and use of various smart charging options, as these options develop. It suggests that qualitative studies, quantitative surveys or "stated preference" techniques could be employed to explore consumer choice in greater depth.

We also recognise the central role of distribution network operators (DNOs) in meeting future demand of EVs. Heat mapping completed by the two Scottish DNOs (SPEN and SSEN) shows significant constraint on supply in certain areas and therefore DNOs must be encouraged to invest in their networks to meet future demand<sup>6 7</sup>. We do however note below our concerns with how electricity network upgrades are funded.

This all comes with the caveat that there are uncertainties as to how low carbon transport technologies will evolve over time. This means that chargeable EVs may compete with, or be superseded by other technologies such as hydrogen fuel cells which may even meet consumer needs better than electric. There is therefore a potential risk of over-investing and over-expanding electricity networks.

---

<sup>3</sup> <http://www.greenerscotland.org/greener-travel/greener-driving/grants-and-funding>

<sup>4</sup> <https://drivedundeeelectric.co.uk/>

<sup>5</sup> [https://www.citizensadvice.org.uk/about-us/how-citizens-advice-works/media/press-releases/keeping-customers-in-the-driving-seat-vital-to-success-of-electric-vehicle-charging-schemes-says-citizens-advice/?mc\\_cid=626b963eb0&mc\\_eid=57d8a13497](https://www.citizensadvice.org.uk/about-us/how-citizens-advice-works/media/press-releases/keeping-customers-in-the-driving-seat-vital-to-success-of-electric-vehicle-charging-schemes-says-citizens-advice/?mc_cid=626b963eb0&mc_eid=57d8a13497)

<sup>6</sup> [https://www.spenergynetworks.co.uk/pages/sp\\_distribution\\_heat\\_maps.aspx](https://www.spenergynetworks.co.uk/pages/sp_distribution_heat_maps.aspx)

<sup>7</sup> <https://www.ssen.co.uk/GenerationAvailabilityMap/?mapareaid=2>

#### **4. Given the declaration of a climate emergency, what more needs to be done to promote a change in culture where EVs are the preferred alternative to fossil fuelled vehicles?**

In terms of the factors preventing consumers from opting for EVs, the On the Move report commissioned by BP<sup>8</sup> showed that consumers identified high cost, limited access to charging points, short battery life and long charging times as the key barriers. In order to overcome these barriers, the report recommended the following steps:

- Tax incentives and grants for purchasing EVs and installing residential chargers.
- Delivery partnerships between government and charge point providers.
- Standardisation of charging infrastructure.
- Consumer education on charging infrastructure and use.

Further, research by Catapult Energy Systems<sup>9</sup> showed that most consumers prioritise the freedom of owning a car and ability to drive long distances at short notice, and therefore EV technology must particularly advance the mileage achieved between charges, which is a key limitation of currently available EVs.

With these findings in mind, it is apparent that there is still significant work to be done to demystify the technology (e.g. driving range), making it affordable (charging points, EV leasing schemes, car-sharing – otherwise it's the preserve of the wealthy), increasing public confidence in the network of charging points so that it is practicable for most journeys. CAS would add that in the period where EVs are relatively new, consumer protection that covers both charging points and vehicles needs to be particularly robust in order to increase public confidence. CAS therefore believes that there is a need for a public education campaign on the above, as well as more financial incentive schemes.

### **Local Energy**

#### **1. The appropriateness and achievability of the 2020 and 2030 community and locally owned energy targets. What are the key issues impacting the viability of relevant schemes?**

The Scottish Government aims to install and complete 1 GW worth of community and locally owned projects by 2020, with a further additional 1 GW targeted for 2030. According to figures compiled by the Energy Saving Trust for the Scottish Government<sup>10</sup>, as of June 2019 approximately 731 MW of community and locally owned energy projects have been installed and are now operational. However, growth is relatively slow, and this operating capacity is

<sup>8</sup> <https://www.systra.co.uk/en-projet/on-the-move-navigating-the-future-of-road-transport>

<sup>9</sup> <https://es.catapult.org.uk/wp-content/uploads/2019/11/Final-ERIS-Report-Home-Truths.pdf>

<sup>10</sup> <https://energysavingtrust.org.uk/sites/default/files/Community%20and%20locally%20owned%20renewable%20energy%20in%20Scotland%202019%20Report.pdf>

only 73% of the 2020 target. Additionally, the research showed that the capacity of further projects<sup>11</sup> to only be an additional 794MW, a decrease on the year before.

This indicates that the Scottish Government still has significant work to do in boosting community and locally owned energy schemes if it is to meet its targets for 2020 and 2030. Some of the existing schemes rely on funding from the Renewable Heat Incentive and with this coming to an end in 2021, the future of these energy schemes is uncertain as a result. We would urge that long term clarity over funding and support is needed critically. We are also concerned that planning restrictions as they stand may pose a barrier to replicating local energy projects and systems. The Scottish Government must work closely with the UK Government to find sustainable solutions for these schemes, for example via capital grant scheme funding. On a wider point, the UK Government must give clarification on its policy intentions for the future of energy, so that consumers can select the option that best meets their energy needs.

Linked to this, local energy requires significant buy-in from communities. There may be many people in communities who do not want to engage as they may not see the benefit of doing so, or who cannot or do not wish to commit the time to participate. The Scottish Government must support these communities to realise the potential benefits of local energy systems, and work in a tailored way that suits the community and gains their trust and eventual buy-in. This could be via using trusted, local intermediaries such as Citizens Advice Bureaux that have already established communities' long-standing trust and brand recognition.

Additionally, there is the need to increase consumer confidence and protection, in order to incentivise more people to join or set up community schemes. Current schemes which can help to fund the setting up of community schemes such as CARES can help with this, however it is unclear how aware consumers are of such schemes.

## **2. Whether it is appropriate to incorporate community and locally owned schemes in the same target and policy area? What more could be done to encourage and support community owned schemes?**

It must be acknowledged that community and local energy schemes are quite different from each other, and there are varying stakeholders involved in each who will need bespoke levels of support. Community energy is the delivery of community-led renewable energy projects, whether wholly owned and/or controlled by communities, or through partnerships with commercial or public sector partners. On the other hand, local energy is more wide ranging, involving a range of different organisations (both public and private sector), who are delivering an energy service for the benefit of local consumers operating within a defined geographical area. With this in mind, community-led projects may come under local energy schemes, and thereby runs the risk of double counting.

---

<sup>11</sup> Those which were which were under construction, consented but not built, in planning stage or in scoping stage at the time

However, both types of scheme have shared principles of decentralisation and low carbon. It would probably therefore be appropriate to couch local energy and community energy together under low carbon and renewable energy policy. Regardless of how the schemes are measured and understood, it is important that the communities have the power to be truly informed, consulted and involved in creating energy systems that meet their needs, such as micro-grids or district heating schemes, and not have schemes forced upon them. It must also be ensured the consumers experience good outcomes from these schemes, such as lower costs, lower carbon emissions and high customer satisfaction.

### **3. Do CARES Grants and Loans adequately support relevant projects?**

CAS does not hold evidence to determine how well CARES supports relevant projects. However, from the growth in capacity of renewable energy over recent years, we can assume that CARES has supported this relatively well, but must ensure that it reviews the landscape and is able to be flexible to meet changing demands. We believe that there must be sufficient monitoring and evaluation to understand its overall impact, and that it is scalable to more communities and not just wealthy communities.

### **4. The role of Distribution Network Operators in connecting community and locally owned projects. What more could be done by DNOs to encourage and support projects?**

We would encourage DNOs to be consulted and involved in the planning of local energy projects from an early stage. We also believe that DNOs should be involved in local stakeholder discussion forums and support the sharing of information and good practice. The Local Heat and Energy Efficiency Strategies (LHEES) that are expected to become a mandatory duty on all Scottish local authorities offer a good opportunity for DNOs to become involved in LAs' long term master-planning for energy. This may cover issues such as the development of heat networks and addressing the network's constraint management zones (CMZs) through community engagement to reduce energy demand. The Scottish Government has started to facilitate this type of engagement through its Networks Vision and associated events where it has brought representatives from LAs and DNOs in the same room to discuss the energy system. More of this needs to happen and the Scottish Government should have a central role in facilitating this. More on LHEES is covered in our response to question 6.

### **5. What role can smart, decentralised local energy systems play in ensuring security of supply and supporting a just transition to net-zero by 2045?**

In theory, smart, decentralised local energy can help to reduce pressure especially in terms of the transmission of energy, and may be able to support the grid by exporting excess energy back to the grid. However, a lot of smaller projects will require support and coordination from central government, especially at the outset, and the government must be prepared for this. We expand on this point in our response to Question 6.

### **6. The role of local authorities in delivering community and locally owned projects. How can these be integrated into local energy systems?**

CAS believes that local energy plans could be integrated into Local Heat and Energy Efficiency Strategies (LHEES) which will be the remit of local authorities. Although not yet a statutory requirement, Local Heat and Energy Efficiency Strategies (LHEES) have already been trialled in most local authorities in Scotland. These could be helpful as an overview tool and coordinate and provide advice and support to community projects, and identify where there is potential to invest, or where an area could benefit from a local project. Initial evaluation of LHEES pilots<sup>12</sup> suggested that local coordinators will be important, both in terms of retaining oversight of local projects and to be a direct point of contact for projects as they grow. It would be timely that work is done now by the Scottish Government to ensure the integration of local energy systems and LHEES, in preparation for all local authorities adopting LHEES.

## **7. What systemic and behavioural changes are needed to increase the use of smart local energy systems? Has public engagement to date been successful and what more could be done?**

CAS believes that lessons from our insight report, "Warming Scotland up to Energy Efficiency"<sup>13</sup> can be applied to attitudes around local energy systems, namely that a significant public awareness campaign is still needed to convince the public of the benefits of energy efficiency and alternatives to traditional fuels in their homes. The research also indicated that consumers must be able to easily access the relevant measures, not experience a significant change in how much they are paying for energy and clearly understand its benefits. The report also showed that new incentives, such as council tax rebates in return for taking action (e.g. improving the energy efficiency of their property) may increase consumer buy-in.

Again, CAS believes that a significant public awareness campaign should be undertaken to make the conversation about low carbon energy and local energy systems more mainstream, and to address consumer concerns.

---

<sup>12</sup><https://heatandthecity.org.uk/wp-content/uploads/2018/11/EES-Pilot-Evaluation-Phase-1-Final-Report1.pdf>

<sup>13</sup><https://www.cas.org.uk/publications/warming-scotland-energy-efficiency-putting-consumers-first>