

## 1. Overview

**1.1** Electrical Safety First is the charity committed to reducing the number of deaths, injuries, and fires caused by electricity in the home. We welcome the opportunity to respond to the Committee's consultation on its priorities for the Sixth Senedd. The target of net-zero emissions by 2050 is an ambition that Electrical Safety First welcomes. From the installation of heat pumps to the uptake of Electric Vehicles (EVs), electrification will be key to the decarbonisation agenda and achieving the target of net-zero and consumer safety must be at the forefront of all aspects of policy development.

**1.2** To achieve net-zero greenhouse emissions by 2050, we need to heat housing with low-carbon heating, such as heat pumps, which require electricity to operate. Currently, 82% of Welsh homes are heated by gas<sup>i</sup>. The use of electricity is likely to further increase given the number of electrical appliances in the home, the advent of the smart home, and Electric Vehicles. There are also issues around the shortage of trained installers and consumers' lack of familiarity with electric heating, electric vehicles and using electrical appliances at different times of the day to take advantage of cheaper tariffs. These will all impact on electrical safety.

**1.3** Electrical Safety First would welcome the opportunity to work closely with the Committee to ensure safety is a key factor in policymaking towards achieving net zero homes.

## 2 Housing and Energy

**2.1** The Committee's considerations should include measures to reduce the number of electrical fires in the home. This is essential in creating truly sustainable homes; homes can only be sustainable if they are safe.

**2.2** The electrification of heat is a crucial component to the decarbonisation agenda. It is appropriate, therefore, that the Committee consider and advocate for the safety of electricity in the home too.

**2.3** As such, safety should be considered as integral to the broader climate change and sustainability agenda, and this should include a focus by the Committee on the following key areas.

## **2.4 Maintenance and qualified installer base**

**2.4.1** The Minister's priorities on the decarbonisation and electrification of heat are crucial steps in achieving the net-zero target. To achieve this target, there will be a need for the deployment of heat pumps across the Welsh housing stock.

**2.4.2** With the shift to electrified heating, it is crucial that stringent standards and processes are applied to low carbon heating installations. Given that all electrical installations deteriorate with age, it is important that they are periodically inspected and tested to confirm whether they are in a safe condition for continued use. The Committee should encourage regular servicing of low (or zero) carbon technologies such as heat pumps, and that this servicing is undertaken by a certified installer or heating engineer. This is in the same way that traditional gas boilers require regular servicing.

**2.4.3** More importantly, the Welsh housing stock is the oldest in the United Kingdom. This will create several safety issues, as it is more costly and cumbersome to retrofit older homes with new technologies. It is vital that there is a focus on increasing and upskilling the specialised and certified installer base, including registered electricians, to holistically retrofit properties. This should be considered carefully by the Committee as policy and legislation is developed to decarbonise homes in Wales. Additionally, the Committee should consider methods to subsidise the retrofitting of homes and promote these options to the Welsh Government.

## **2.5 Electrical Safety Checks**

**2.5.1** Given the growing role of electricity within the home (for instance, with the installation of heat pumps), there is a need for mandatory electrical safety checks. This should cover both electrical installations and appliances. At present, more stringent requirements for safety inspections are placed on the gas sector than on the electricity sector. This is despite the fact electricity is responsible for a greater proportion of house fires each year and will play an increasing role in our homes given the decarbonisation agenda. Ensuring that safety is a priority whilst encouraging the electrification of heat in the home should be a key priority focus of the Committee.

**2.5.2** On this basis, the Committee should ensure the Welsh Government delivers on its commitment to introducing five-yearly electrical checks in the Private Rented Sector (PRS) and Social Rented Sector (SRS). These checks are already in place in England and Scotland.

## **2.6 Elderly and Vulnerable Populations**

**2.6.1** Relating to the elderly population, anyone over pension age who receives pension credit, council tax benefit or housing benefit can currently receive a free gas safety check from their energy supplier as part of Priority Services Register obligations. We believe this should be extended to include free electrical safety checks for the same group. Electricity causes a greater number of fires than gas

and the elderly are disproportionately impacted by deaths and injuries from fires caused by electricity.

**2.6.2** The Committee should encourage the Welsh Government to take proactive preventative steps to reduce the risks that electrical fires pose to Welsh residents. This could include wider discussions with the UK Government and energy suppliers who should consider launching free services including electrical safety checks to support the safety of vulnerable consumers as we transition away from gas.

## **3. Circular Economy**

**3.1** Whilst the circular economy and the reuse of products has an important part to play in the decarbonisation agenda, it is essential that the safety of products (particularly electrical products) is maintained.

**3.2** To ensure the success of the circular economy (and specifically, that electrical products within the circular economy are safe), there needs to be clear product safety standards in place. The development of standards is needed on the repair, refurbishment, and reuse of products and components. This could include date stamps and life expectancy markings on white goods.

**3.3** Relatedly, product repairs need to be undertaken safely. This will likely be more important as repairs become commonplace (especially given right to repair legislation which the UK Government introduced in July 2021).

**3.4** Given that product safety is a reserved issue to the UK Government, this is an issue that the Welsh Government will need to work collaboratively on with the UK Government, particularly the Department for Business, Energy, and Industrial Strategy. This should include a review of eco-design regulations to ensure that they are fit for purpose within the context of a growing circular economy.

**3.5** In addition, the Committee should consider the need to develop a network of qualified and competent repairers. The Committee should promote this within

the context of the circular economy to ensure that this element of the sustainability agenda is delivered with safety in mind.

**3.6** The Committee should also consider and advocate for consumer education and awareness raising campaigns by the Welsh Government on issues of repairability of products. Specifically, this should include awareness raising with the public that complex repairs, and refurbishments should only be undertaken by competent and qualified professions.

## **4. Transport**

**4.1** As part of the decarbonisation of transport, the UK Government has committed to banning new petrol and diesel vehicles by 2030<sup>ii</sup>.

**4.2** However, Electrical Safety First is concerned that safety considerations are not being adequately considered in this important area. In particular, the transition towards EVs needs to be coupled with associated behavioural changes to ensure that consumers are charging their EVs safely.

**4.3** A consumer survey of 1,500 EV owners, conducted for Electrical Safety First, found that consumers engage in a range of unsafe EV charging practices provides evidence of practices due to a lack of nearby charging infrastructure or appropriately installed domestic chargers<sup>iii</sup>. For instance, nearly three quarters of EV owners surveyed had used domestic multi-socket extension leads (not suitable for outdoor use) to charge from the mains in their home. This is despite nearly 90% of EV owners knowing that these extension leads are not suitable for outdoor use.

**4.4** Similarly, three quarters of EV owners relied on “daisy-chaining” (linking numerous extension leads together) to charge their vehicle and half had left extension leads out whilst it was raining. All these practices are unsafe, increasing the risk of electric shock and fire.

**4.5** There are also unique issues that affect EV owners depending on where they live and the geography of that area. For instance, the growing use of EVs in urban areas (such as Cardiff, Swansea, Newport, and Wrexham) may present challenges for renters and residents of properties that don't have access to private or on-street parking and lead to an increase in unsafe charging practices. By contrast, those living in rural areas are likely to suffer from “range anxiety” (a concern over where the nearest EV charging point is), and this in turn may lead to a dependence on unsafe charging methods.

**4.6** As such, the solution to unsafe EV charging practices will be contingent on the geography of the area. Provisions should be considered on a localised level, based on engagement with residents and other relevant stakeholders – and this should be considered as part of the priorities for the decarbonisation of transport.

**4.7** The Committee should consider requesting the Welsh Government to undertake a mapping exercise to ensure that the deployment of future charging infrastructure projects is co-ordinated, and that further disparity by geography is not created. There should also be a focus on removing some of the barriers for renters and residents of properties without access to safe charging facilities.

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<sup>i</sup> <https://gov.wales/sites/default/files/statistics-and-research/2019-10/welsh-housing-conditions-survey-energy-efficiency-dwellings-april-2017-march-2018-795.pdf> <sup>ii</sup> <https://www.gov.uk/government/news/government-takes-historic-step-towards-net-zero-with-end-of-sale-of-new-petrol-and-diesel-cars-by-2030> <sup>iii</sup> Consumer survey conducted by Censuwide for Electrical Safety First in 2019.