

A Summary Briefing

Future Homes - Electrical Safety in the Net Zero Home Product Safety

The UK has set climate change targets which will mean an inevitable change to our housing stock and the way we use energy. However, we must ensure that this does not come at the expense of consumer safety.



Introduction

Electrical Safety First is the UK charity dedicated to reducing deaths and injuries caused by electrical accidents. Our report focuses on some of the technologies that may be present within the home of the future, the potential electrical safety risks that may be associated with the net zero transition and recommendations to mitigate them.

This summary focuses specifically on the safety risks outlined in the report that may be associated with the transition to a low carbon future in relation to **product safety**.

To read the full report visit:

www.electricalsafetyfirst.org.uk/futurehomes

What Does the Future Home Look Like?

A net zero ready or future-proofed home is likely to consist of a highly insulated building fabric and include many technologies and solutions that are not commonplace within the UK today. Features may include low carbon heating, on-site renewable electricity generation and highly efficient building services installed to make homes comfortable and functional, such as improved ventilation and lighting. It is also increasingly likely that many homes will have an electric vehicle and associated on-site charging.

This summary details safety risks that may be associated with product safety and recommendations to mitigate them.



Product Safety

As we see the prevalence of low carbon, energy efficient and smart technologies increase, there are many factors to consider that can influence consumer safety.

For example, solutions which enable Demand Side Response* could create an inherent risk to safety if appliances decide or are instructed to run when people are asleep or not at home. Electrical safety risks can be minimised by ensuring that products are developed so that risks are balanced with risk mitigation. Appliances should ideally have the capability to alert consumers if safety features are triggered.

Furthermore, whilst there may be some advantages to carrying out repairs rather than buying new, it is important that consumers use reputable and competent tradespeople to repair equipment and that electrical safety implications are considered. Product recall response rates are also in need of improvement and introducing measures to enhance product registration and traceability would help facilitate this.

Better protection for online shoppers is also vital since unsafe goods can currently be bought online via online marketplaces which do not provide consumers with the same legal protections they have when buying from a high street retailer.

* Demand Side Response is where energy users alter their consumption patterns in response to a signal or incentive from the network operator.



Risks	Recommendations
<p>The increased use of appliances at night, which may result from an increasing prevalence of solutions which enable Demand Side Response, could create an inherent risk to safety if not appropriately considered. If a fire breaks out overnight, the risk to life is greater.</p>	<p>The Office for Product Safety and Standards (OPSS) should monitor the number of incidents related to the running of appliances when the home is unoccupied or households are asleep and improve safety standards for smart technologies to minimise risk.</p>
<p>It is unclear to what extent consumers will be driven by price signals and to what extent smart technology will be self-enabled or influence consumers to use their appliances at night. The potential risks of running appliances overnight need to be better understood.</p>	<p>Manufacturers must ensure that products are as safe as practicable and innovate to ensure that any additional foreseen risks associated with running appliances overnight or when the home is unattended are minimised.</p>
<p>Inappropriate use of technology or poor maintenance can significantly heighten the risk of electrical fires. Ensuring that consumers operate and maintain appliances correctly is crucial and the importance of this only increases as time of use is shifted.</p>	<p>Consumer awareness campaigns that look at how to mitigate the risk of fires caused by appliances in the home should be run by Government, Fire and Rescue Services and consumer protection organisations.</p>
<p>Unsafe goods can be bought from online marketplaces and consumers do not have the same legal protections as they would when buying from a high street retailer. 93% of consumers expect e-commerce sites to protect them against counterfeit goods. However, online marketplaces are not bound by the same laws as traditional retailers.</p>	<p>OPSS/Department for Business, Energy and Industrial Strategy should put in place appropriate regulations for online marketplaces so that consumers buying electrical products online have the same protections as they have in a high street shop.</p>
<p>The UK Government has committed to mirroring the EU right to repair legislation, which requires manufacturers of electrical goods to effectively make their products “repairable” for a minimum of 7-10 years after first coming onto the market. If a product is to be repaired, it is important that the electrical safety implications of this are considered, and that consumers use qualified and competent tradespeople to repair equipment.</p>	<p>Department for Environment, Food and Rural Affairs and OPSS should develop a network of qualified and competent repairers via collaboration between low carbon, energy efficient and smart solution product sellers.</p>
<p>There is a risk that consumers will opt for low cost and often sub-standard, counterfeit or second-hand products to replace faulty or broken equipment. Counterfeit electrical goods almost always contain sub-standard or faulty parts that can overheat or break just days after purchase, increasing the risk of fire or electric shock. They are also increasingly available for sale from unregulated third-party sellers on online marketplaces.</p>	<p>Electrical Safety First should facilitate collaboration between manufacturers, sellers and consumer awareness groups, and launch an awareness raising campaign to educate consumers on the risks associated with buying unsafe technology or replacement products from online marketplaces.</p>



Conclusion

In summary, there is a risk that an increased prevalence of smart technologies, online shopping and product repairs could expose consumers to unsafe goods and create inherent risks to safety if not appropriately considered.

Steps must therefore be taken to monitor the transition to smart homes and mitigate any risks, to protect consumers when buying products from online marketplaces, improve product recall response rates and increase the availability of specialised and certified installers and registered electricians.

Contact Us

To discuss any of the recommendations detailed in this summary or in the wider report, please contact the Electrical Safety First team.

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