

# **Consultation on how government will ensure the appropriate regulation of energy smart appliances**

Citizens Advice response



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June 2024

# Introduction

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## Citizens Advice

We can all face problems that seem complicated or intimidating. At Citizens Advice we believe no one should have to face these problems without good quality, independent advice. We give people the knowledge and the confidence they need to find their way forward - whoever they are, and whatever their problem.

We provide support in approximately 2,500 locations across England and Wales with over 18,000 volunteers and 8,650 staff.

Through our advocacy work we aim to improve the policies and practices that affect people's lives. No one else sees so many people with so many different kinds of problems, and that gives us a unique insight into the challenges people are facing today.

As the statutory consumer watchdog for the energy and post industries we have an important role to play in shining a spotlight on the problems consumers encounter, providing solutions to these problems and ensuring their voices are heard when important decisions are made about the future of these essential markets.

If you would like to discuss any part of our response further, please contact Rachel Mills at [rachel.mills@citizensadvice.org.uk](mailto:rachel.mills@citizensadvice.org.uk)

# Our response

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1- 2.

Not answered

**3. Do you have a view on when the smart mandate for heating appliances should be implemented? Please provide evidence to support your answer.**

We agree with the timescales laid out. There is a need to move at pace to provide industry with clear direction and enable consumers to benefit from flexibility.

**4. Would you support the introduction of a metering accuracy requirement to the effect that all ESAs should have a means to measure their import/export consumption to up to or better than 2% nominal accuracy?**

We support the aim of requiring ESAs to achieve a metering accuracy up to or better than 2%.

We are conscious that concerns have been raised by stakeholders about discrepancies between different requirements for ESAs and the potential for a separate requirement to complicate this further. We urge the government to address these concerns and ensure that regulations complement one another, namely the Measuring Instruments Regulations 2016, The Public Charge Point Regulations 2023 and any future ESA regulations.

5.

Not answered

**6. Do you agree that the scope of the smart mandate should be extended to include hot water storage and generation (indirect electric hot water storage cylinders, standalone direct electric hot water cylinders, and hot water heat pumps)? If not, please provide supporting evidence.**

**7. Do you agree that the scope of the smart mandate should be extended to include the whole hybrid heat pump system (rather than just the heat pump within a hybrid), with requirements placed on the common controller? If not, please provide supporting evidence.**

Our answer covers questions 6 and 7.

We do not have a strong view on the types of heating systems that should be covered by the smart mandate, as our expertise does not extend to specific technologies.

We think a better approach would be to base the scope of the mandate solely on activity rather than type of appliance. The smart mandate should cover any energy-related appliance with a role to play in enabling flexibility for consumers, since the benefits and risks are likely to be similar for appliances undertaking this same activity, regardless of the appliance type.

**8. Do you have a view on whether standalone domestic battery energy storage systems (BESS) should be included in future legislation in order to be subject to the smart mandate requirements associated with the first phase regulations? Please provide evidence to support your answer.**

We don't think it is enough to assume that the market may be able to deliver smartness for BESS without intervention. Standalone battery energy storage systems should be subject to the smart mandate requirements. This would ensure consistency across the government approach.

The smart mandate should cover the full range of systems and appliances that are likely to provide low carbon heating and/or energy storage to consumers in the evolving decarbonisation market.

**9 - 10.**

Not answered

**11. Do you agree with government’s proposal that electric heating appliances must be able to modulate output and/or change the time at which electricity is consumed in response to signals, including price and other signals that facilitate DSR?**

**12. Do you agree with the proposal that electric heating appliances within the scope of the mandate must provide two-way communication in order to receive and act upon direct control signals, and to send signals on the device status?**

Our answer covers questions 11 and 12.

We agree. In order to be ‘smart’ and enable DSR services, appliances must be able to respond to signals. These signals should include those from the consumer, either in the form of pre-set consumer preferences or direct signals such as overriding a setting or price signal. We agree that two-way communication is important as this will be integral to a smooth consumer journey where consumers can understand how to obtain the benefits associated with smart appliances.

**13. Do you agree with the proposal that electric heating appliances within the scope of the mandate must be designed to be interoperable so that devices do not cease to have smart functionality if the owner changes electricity supplier?**

We strongly agree. This is highly important for a smooth consumer journey and avoiding early negative experiences with smart appliances.

There is a lesson to be learned from smart metering, where early poor experiences with non-interoperable technology (SMETS1 meters) are still tainting people’s perceptions of smart meters and smart products and services more generally. Recent research has found that a poor experience of getting a smart meter installed makes people two-thirds less likely to access smart-enabled products and services than if they were happy with their smart meter installation.<sup>1</sup>

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<sup>1</sup> Citizens Advice (2024) [Get Smarter: Ensuring people benefit from Smart Meters](#)

**14. Do you agree with the proposal that, as part of the first phase ESA regulations, electric heating appliances within the scope of the mandate must be designed to utilise open standard communication protocols for the application interface to remove a barrier to interoperability with DRSRPs?**

We agree that this must form part of the first phase ESA regulations.

We also agree that the second phase regulations must then build upon this requirement to further specify a required minimum communication protocol.

**15. Do you agree with the proposal that the mandate should require electric heating appliances to prioritise safe operation over responding to information or user input?**

**16. Do you agree that the mandate should require electric heating appliances to be able to continue to function to provide heating and/or hot water services when network connection is lost?**

Our answer covers questions 15 and 16.

We agree. These safety backstops are crucial for avoiding negative, detrimental consumer experiences that could significantly undermine consumer confidence.

It is also important that, when a response to information or user input that is not acted upon due to safety reasons, this is clearly communicated to the consumer and they understand why this is the case.

**17. Do you agree with government's proposal that the mandate should not require a maximum turn/shut down time or minimum speed of response?**

We don't have a strong view on whether the mandate should require a maximum turn/shut down time or a minimum speed of response.

However, ESA sellers should be required to ensure that customers understand what the turn/shut down time or minimum speed of response is for the appliance.

## 18 - 19.

Not answered

## 20. Do you agree with government's proposal that all electric heating appliances within scope must provide a user interface?

We agree. The ability to easily change preferences and settings is an important part of a good consumer journey. From our research, we know that consumers value transparency and a sense of control; a user interface is an important vehicle for this.<sup>2</sup>

As laid out in 'A flexible future', we urge the government to coordinate the development of industry standards for designing accessible products and services.<sup>3</sup> This should encompass user interface design.

## 21 -22.

Not answered

## 24. Do you agree with government's proposal that all electric heating appliances, on set up, should require users to set their heating preferences, that DSR and TOUT operations to be enabled by default, and for functions that can be undertaken outside of peak hours to be pre-set to do so?

We agree. To realise the benefits of this requirement, it will be important that consumers understand the preferences that have been set and the DSR / TOUT operations that have been enabled by default.

This should form part of DSRSPs' obligations under the proposed licence condition around effective communication with consumers. Consumers should be able to easily access and refer back to this information after set-up.

## 25 - 27.

Not answered

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<sup>2</sup> Citizens Advice (2023) [A flexible future: extending the benefits of energy flexibility to more people](#)

<sup>3</sup> Citizens Advice (2023) [A flexible future: extending the benefits of energy flexibility to more people](#)

## **28. Do you agree with government's proposal not to place any legal obligations on installers of smart heating appliances?**

We think this should be tackled on a broader level. We have called for a complete review of consumer protections for those carrying out green upgrades to their homes.<sup>4</sup> We observe a number of protection gaps in the installations market: a confusing landscape of overlapping codes and schemes, inconsistent levels of financial protections in the sector, and a lack of quality assurance and redress.

There have recently been media reports of upgrades completed under government-backed green energy schemes failing hundreds of thousands of households because of inadequate installations and unclear routes to redress.<sup>5</sup>

With the domestic flexibility sector still in its nascency, this is an opportunity to avoid a similar narrative.

## **29 - 39.**

Not answered

## **40. Are there any areas where you foresee the need for additional standardisation beyond PAS1878? If so, in what areas and over what timeframes would you expect new standards to develop?**

We would like the government to explore the development of standards for accessible design of smart products and services.<sup>6</sup>

The publication of PAS 1899, which sets out voluntary standards for the accessible design of public chargepoints, was an important first step towards smart energy being more accessible and inclusive to disabled people.<sup>7</sup> We think PAS 1899 could go further by encompassing interface design.

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<sup>4</sup> Citizens Advice (2024) [Letter to the Secretary of State for Energy Security and Net Zero - Urgent review of net zero consumer protections](#)

<sup>5</sup> 'Homes insulated in government scheme go mouldy', <https://www.bbc.co.uk/news/articles/cxwwr7vyrj0o> [accessed May 2024]

<sup>6</sup> Citizens Advice (2023) [A flexible future: extending the benefits of energy flexibility to more people](#)

<sup>7</sup> British Standards Institute (2022) [Electric Vehicles Accessible Charging Specification - PAS 1899](#)



Standards for accessible design of smart products and services could use PAS 1899 as the basis for setting out features (both physical and in the user interface) that would make smart products and services accessible to a wider range of consumers.

**41- 44.**

Not answered

**45. Should DSRSPs be required to ensure that services they offer are interoperable with all ESA types that they offer that service to? (for example, a service for EV drivers should be compatible with any approved standards for EV charge points).**

We strongly agree that DSRSPs should be required to ensure their services are interoperable with all ESA types, for similar reasons to those in our answer to question 13.

**46 - 50.**

Not answered

**51. Do you believe that in the future, homes with multiple devices will have problems (such as sub-optimal energy management, grid stability concerns, etc) if there is not an active management of the devices at a premises level?**

**52. What is your definition of a Home Energy Management System (HEMS) and what, if any, role do you see HEMS having within the SSES technical framework?**

Our answer covers questions 6 and 7.

Households having access to active management of devices at a premises level is likely to support a good consumer journey, by optimising energy management and providing consumers with oversight of multiple devices.

We broadly agree with the government's working definition of a HEMS. In addition to the roles of controlling, configuring and optimising energy usage or production, we would recommend adding that another key role of a HEMS is taking into account customer preferences and settings.

We think it's right that the role of HEMS is explored as part of the development of technical frameworks.

### **53 - 56.**

Not answered

### **57. Do you agree that electricity network licence holders are best placed to meet certain costs of setting up and maintaining technical and security frameworks during the Transition Phase? Please explain your answer.**

We agree, firstly, with the principle of cost or value reflectivity so that those who use or benefit from a service or set of arrangements bear its costs, particularly if costs are material. We agree that this should be the ultimate aim of any charging methodology which does not simply aim to socialise the recovery of costs.

In particular this is important to ensure that those who face these costs have an appropriate incentive to provide scrutiny and ensure that ongoing costs of the framework are efficient. There are circumstances where parties who experience such costs on a pass through basis may have little incentive to ensure costs are efficient. This risks consumers overpaying.

The benefit of providing flexibility will be in delaying or entirely avoiding some network reinforcement, and minimising constraint costs. This will minimise the costs consumers face through electricity networks and the system operator.

We agree that until a suitably mature charging methodology and charging base is established, charging to electricity network licensees may be the simplest short-term solution to socialise initial setup costs for the transition phase.

However, charging any costs to electricity network licences in the future for the delivery phase may depend on the approach taken. Where the aim is to socialise and the costs are not material, network costs may be a reasonable approach. Where the aim is for charges to be more cost reflective it would be more appropriate for load control licensees and ESA manufacturers to bear a larger proportion of the cost.

We agree that services by load controllers may be in response to demands from network licence holders in their distribution system operator roles and therefore the charges could be incurred by either party. However, services will also be in

response to demand by the system operator. In this circumstance it may be more appropriate for load controllers and ESAs to face these costs.

**58. Do you agree with the proposed approach for recovering the costs of administering a licensing regime? Please explain your answer.**

We agree with the proposed approach for recovering costs, since this is an established and effective approach towards recovering supply licence administration costs. We agree that decisions around the distribution of costs across load control licensees and other licensees should be informed by further assessment of expected costs and expected number of businesses in scope. Where possible, the costs of the licencing scheme should be borne to a greater extent by those most directly benefiting from being licenced, unless these costs would be unduly prohibitive.

# Citizens Advice helps people find a way forward.

We provide free, confidential and independent advice to help people overcome their problems. We are a voice for our clients and consumers on the issues that matter to them.

We value diversity, champion equality, and challenge discrimination and harassment.

We're here for everyone.

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Published June 2024.

Citizens Advice is an operating name of The National Association of Citizens Advice Bureaux.

Registered charity number 279057.