Consumer Scotland
Luchd-Cleachdaidh Alba

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Email to
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Call for evidence: Developing an energy smart data scheme

About us

Consumer Scotland is the statutory body for consumers in Scotland. Established by the Consumer Scotland Act 2020, we are accountable to the Scottish Parliament. The Act defines consumers as individuals and small businesses that purchase, use or receive goods or services in Scotland supplied by a business, profession, not for profit enterprise, or public body.

Our purpose is to improve outcomes for current and future consumers, and our strategic objectives are:

- to enhance understanding and awareness of consumer issues by strengthening the evidence base
- to serve the needs and aspirations of current and future consumers by inspiring and influencing the public, private and third sectors
- to enable the active participation of consumers in a fairer economy by improving access to information and support

Consumer Scotland uses data, research and analysis to inform our work on the key issues facing consumers in Scotland. In conjunction with that evidence base we seek a consumer perspective through the application of the consumer principles of access, choice, safety, information, fairness, representation, sustainability and redress.

Consumer principles

The Consumer Principles are a set of principles developed by consumer organisations in the UK and overseas.

Consumer Scotland uses the Consumer Principles as a framework through which to analyse the evidence on markets and related issues from a consumer perspective.

The Consumer Principles are:

- Access: Can people get the goods or services they need or want?
- Choice: Is there any?
- Safety: Are the goods or services dangerous to health or welfare?
- Information: Is it available, accurate and useful?
- Fairness: Are some or all consumers unfairly discriminated against?
- Representation: Do consumers have a say in how goods or services are provided?
- Redress: If things go wrong, is there a system for making things right?

We have identified choice, safety, information and representation as being particularly relevant to the consultation proposal that we are responding to.

Our response

Consumer Scotland welcome the opportunity to respond to this consultation on a proposed smart data scheme in the energy market.

Consumer Scotland welcomes the ambitions to develop a smart data scheme in energy. The ability to consent to share data on energy consumption, tariffs, and other metrics – whether for historic periods or in real time – could support consumers in securing lower bills and in contributing to the net zero transition.

A smart data scheme will only be as useful as the data that informs it. This observation reiterates the importance of enhancing the penetration of smart meters, and the capability of smart meters to record and report different metrics.

Whilst a smart energy data scheme can bring benefits to consumers, there are also risks. One risk is simply that the benefits of schemes that come forward do not outweigh costs. But there are also risks that a smart data scheme could cause harm to consumers if it is misused (e.g. through unsolicited contact, promotion of inappropriate products, or if it creates unfairness for consumers by for example penalising them directly or indirectly on the basis of a historically high rate of energy consumption).

Partly because of these risks, many consumers are understandably wary about consenting to share their data. Building and maintaining consumer trust in a smart data scheme hinges on a number of factors, including:

- The ability of consumers to control which aspects of their data is shared, and for what purpose. It is important that consumers can revoke their consent to data sharing if they desire. Consent should not be one-off, but always under the consumers' control.

- The deployment of rigorous processes for authorising Third Parties, monitoring how ATPS are using consumer data, and evaluating the extent of benefits and any harm to consumers from that use of data.

- Thie effectiveness of reporting and enforcement. Active monitoring and speedy enforcement will be key to ensuring that the scheme is taken up by consumers. To support this, consumers should have a mechanism to flag potentially inappropriate use of their data, to act as a reporting mechanism for investigation and enforcement when needed.

Consumer Scotland recommends that the principles previously set out by Department for Business and Trade could be better embedded in this proposed scheme to ensure consumer trust. These are authentication, transparency, control, accountability, and redress[i]. Additionally, consideration could be given to Which?'s model for smart data trust

frameworks model [ii] as part of the design framework to support consumers across society feel confident in engaging in the scheme.

These issues of consent, authorisation and enforcement will also need to be considered in the context of the potential integration of consumers' energy data with data from other sectors further in the future. Consent and control across multiple sectors could be difficult for a consumer to navigate if there are control portals for each new scheme.

It is critically important to support consumers in vulnerable circumstances and those who are digitally excluded. Here, the challenge is to ensure that these consumers are not left behind the opportunities, whilst also delivering appropriate safeguards to ensure the ongoing informed consent of these consumers.

Finally, we would welcome the government setting out different possible models of oversight that could ensure the proposed scheme is suitable for consumers. A strong, and proportionally represented, governance model will be important for establishing delivery and management arrangements of the scheme that consider the needs of all stakeholders equitably.

Consultation questions

Question 1. What are your views on the benefits of an energy smart data scheme? This might include (but is not limited to) benefits to customers, decarbonisation, the economy and wider society.

We agree that there are potentially significant benefits that consumers could gain from a smart data scheme. In particular, products using smart data could also provide an incentive to consumers to take up smart meters.

Some possible use cases could be:

- Flexibly timed smart products could allow consumers to choose when and how they use their energy while also contributing to net zero targets.

- If the smart meter's technology allows, some consumers could also benefit from flagging of faulty devices that are producing surges, which would support health and safety in homes.

Question 2. What can we learn from Open Banking that would be helpful to consider when developing an energy smart data scheme? This might include(but is not limited to): phasing, structure, funding, participation, growth, implementation or governance.

No comment.

Question 3. What can we learn from international examples of Smart Data schemes for our approach in the energy sector?

No comment.

Question 4. What additional value could an energy smart data scheme deliver alongside existing data sharing initiatives? Please include your views on how an energy smart data scheme might support or hinder existing data sharing and digitisation initiatives.

No comment.

Question 5. What energy customer needs could potentially be addressed by and energy smart data scheme?

No comment.

Question 6. Which customer groups might benefit most from an energy smart data scheme and why?

We would welcome government considering the evidence base in relation to consumer take-up of open banking to understand the possible profile of those consumers who are more likely to take up an energy smart data scheme. This would be helpful for informing any possible future smart data schemes to understand who early adopters might be and potential barriers to take-up.

Generally, those consumers who are actively engaged with new technology and have the time to choose services will be most likely to benefit from an energy smart data scheme, as they will have the knowledge and resources to make use of what is offered. Additionally, those consumers with the financial resources to purchase 'smart' devices and appliances will also more able to make use of smart data-based products. I

Question 7. What specific challenges or barriers to participation might be faced by particular customer groups?

A Citizens Advice report in 2024 highlighted a number of issues with smart meters across the UK.[iii] Addressing critical issues of data gathering/provision will be central to the success of this proposed scheme.

The costs of accessing the appliances that can make use of the smart data schemes may be prohibitive for consumers on low incomes, who may therefore be less likely to benefit from the scheme.

It will also be essential that there are appropriate protections in place to ensure that consumers are able to properly give and manage consent and control in such a scheme. Robust and resilient protections will be required, particularly with regard to consumers in vulnerable circumstances and the involvement of consumer representatives in the development of these systems and processes will be important.

We would also welcome the government setting out details on the following:

- how digitally excluded consumers could opt-in to a smart data scheme, and following an opt-in how would those consumers manage the control element of the scheme proposed

- what research and evidence the government has gathered on whether any groups experience detriment from not having access to the scheme.

It is important that the costs of the scheme are not attributable to those not able to participate (or choosing not to participate) in the scheme.

Question 8. How can we build and maintain customer trust in an energy smart data scheme?

Which?'s report on building trust in smart data, provides a useful overview of some of the risks of consumer harm, such as "exploitation, poor quality products and a lack of meaningful consent."[iv]

There is a risk that the availability of a smart data scheme could attract some parties who offer products to consumers for which the benefits do not justify additional costs. There may also be a risk that smart data creates unintended harm for consumers. For example, if if historic high energy use affected the ability to sell a property, or if real time energy data posed a security risk to the home.

Building trust is about ensuring that consumers have full control over what data is shared and for what purpose; it is also critically about robust systems and protocols for vetting third parties and monitoring those organisations' use of data.

Accountability and redress will therefore be crucial in ensuring that if things do go wrong, those responsible are held accountable and the appropriate enforcement and remedial action is undertaken timeously.

To help support consumer trust, consideration should be given to options for the involvement of consumer organisations in the design and oversight mechanisms for the scheme, building upon current arrangements such as the Smart Energy Code Panel.

Question 9. What measures should be considered to ensure customers are protected?

We have discussed some possible measures in Question 8.

Question 10. What are the potential incentives and barriers for established energy market actors to provide access to customers data (e.g. operational, commercial, legal)? What interventions might be necessary?

No comment.

Question 11. What are the barriers currently faced by third parties in accessing customer data? What potential barriers might be faced by authorised third parties in offering increased or improved services to customers through a Smart Data scheme?

No comment.

Question 12. What customers groups should be included in an energy smart data scheme and why?

We think that all consumers could potentially benefit from an energy smart data scheme if sufficient control and support is given across the market to enable participation.

Question 13. What aspects of the GB energy mix should be included in an energy smart data scheme and why?

No comment.

Question 14. What are the potential use cases for an energy smart data scheme? Where relevant, please identify target customer groups or geographic region they would cover?

No comment.

Question 15. What datasets should be included in an energy smart data scheme and why? Please consider all types of energy data (e.g. electricity, gas), including which data should be a minimum requirement for any Smart Data use case and which data might be challenging to include.

No comment.

Question 16. What opportunities might there be to take advantage of AI and machine learning solutions in an energy smart data scheme? Please consider any additional governance and protections required to mitigate any risks.

Transparency and accountability will be crucial if consumers are to trust any smart data schemes making use of AI. We would welcome discussion on how the monitoring, assessment and any required enforcement of any AI/ML models used by parties in the smart data scheme will work.

Any models must be made explainable to ensure that any risks to consumers can be properly identified and any consumer harm promptly tackled and remedied.

Additionally, an oversight committee with appropriate consumer representation and sufficient expertise in the sector could support efforts to effectively oversee any AI/ML products and help protect consumers from harm.

Question 17. How should we prioritise different energy use cases? Please consider aspects such as phasing, complexity, data accessibility and participation.

No comment.

Question 18. What unique or specific features of the energy market (and/or energy data) should we consider when developing a Smart Data scheme?

No comment.

Question 19. What common principles are needed to support the development of an energy smart data scheme and why?

Consumer Scotland are of the view that the principles set out previously by the UK Government in its paper on smart data schemes would also be suitable for this proposed scheme.

Question 20. What are the specific technical considerations for developing an energy smart data scheme? (E.g. data standards, data access, use of APIs, authentication). You are welcome to include visual aids or diagrams to support your response.

No comment.

Question 21. What specific privacy and security issues should be considered when developing an energy smart data scheme and how might these be addressed?

No comment

Question 22. Which body (or bodies) should be responsible for scheme design and implementation? Which body should be responsible for regulating the scheme? Please include consideration of the most appropriate role for government.

Ofgem, if resourced appropriately, could be a suitable body responsible for scheme design, implementation and regulation given its market responsibilities. Given its responsibilities for regulating the energy market, giving the scheme to another body risks potential conflict with the regulator's general market activities. In our recent response to the government's consultation on the review of Ofgem, we highlighted the need for Ofgem to be able to take a joined-up and systemic approach across its work.

As open data and smart data schemes develop, we would welcome the government considering how these will work across multiple markets and how possible conflicts between regulatory needs and the role of such schemes may be managed. Consideration should be given to the appropriate governance and information sharing mechanisms, to ensure that smart and open data schemes work effectively for consumers across all markets they exist in.

Question 23. What are the required roles and responsibilities for the ongoing operation of an energy smart data scheme? This might include (but is not limited to): accreditation, accountability, oversight, enhancement and liability.

Please see our answers to previous questions on the issues of accountability and oversight.

Question 24. What common functions and responsibilities should be centralised to enable interoperability with other markets outside the energy sector?

No comment.

Question 25. What are your views on the feasibility to deliver an energy smart data scheme? Please consider any current or planned industry developments or changes that might affect delivery and highlight any key challenges.

No comment.

Question 26. What challenges and risks should we consider when developing an energy smart data scheme and how can we mitigate these? This might include (but is not limited

to): competition; customer exclusion; data quality or data misuse; ethical, operational or technical concerns.

A key risk for this proposal is the source of the data to be used, as most of the data will come from smart meters.

As smart meters are the gateway technology to underpin the scheme, then smart meter penetration and the breadth and robustness of data recorded through smart meters is critical to underpin the impact of the scheme.

Additionally, consumer exclusion could likely be an issue for the digitally excluded, which we have discussed in other question responses.

Question 27. What are the potential implementation costs to industry of introducing an energy smart data scheme? What aspects of a scheme might be most challenging to implement?

No comment.

Question 28. How might implementation and ongoing management costs of a scheme be distributed across industry participants in an energy smart data scheme?

No comment.

Question 29. Do you have any additional comments on any aspect of developing an energy smart data scheme that has not been covered elsewhere in this call for evidence?

No comment.

[i] https://assets.publishing.service.gov.uk/media/66190f98679e9c8d921dfe44/smart-data-roadmap-action-the-government-is-taking-in-2024-to-2025.pdf
[ii] https://www.which.co.uk/policy-and-insight/article/building-consumer-trust-in-smart-data-aLpql3q6tEdM
[iii] https://www.citizensadvice.org.uk/about-us/media-centre/press-releases/millions-missing-out-on-smart-meter-benefits-due-to-faults-and-poor-supplier/
[iv] Building consumer trust in Smart Data - Which? Policy and insight