



Department for
Energy Security
& Net Zero

Developing an energy smart data scheme

Government response to the call for evidence



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Executive summary

In January 2025, the government launched a call for evidence to understand the opportunities, barriers and risks of introducing a Smart Data scheme in the energy sector.

The central objective of Smart Data is to enable the secure sharing of customer data - at the customer's request - with authorised third parties. This enables customers to access useful, personalised and innovative products and services from third party providers that cater to their needs. For example, using actual consumption data can help customers more easily find the best tariffs, access better energy deals, or understand low carbon options for their homes and businesses.

Alongside providing real value for customers, enhanced data sharing is vital for the shift to a low carbon economy and enabling clean power by 2030 and net zero by 2050, to support the energy system to operate flexibly and responsively.

Establishing a Smart Data scheme is enabled by the Data (Use and Access) Act 2025 which received Royal Assent in June 2025. The Act establishes regulation-making powers to allow government to set up new Smart Data schemes across the economy.

We asked for stakeholder views on how to design a scheme and define its scope, how to build customer trust and industry participation, and what wider industry and cross-sector issues we should consider.

The call for evidence received 58 responses from a range of stakeholders, including large energy suppliers, technology providers and startups, consumer groups and trade associations. **A substantial majority of respondents (76%) from a diverse range of stakeholder groups were supportive of the development of an energy smart data scheme.**

The evidence suggests that an energy smart data scheme would support customer engagement by helping customers access the best energy deals for their needs and help them understand how to use energy more flexibly to save money.

An energy smart data scheme would also deliver wider benefits, including supporting the transition to clean power and net zero, and unlocking opportunities for economic growth and innovation.

We have also concluded that an energy smart data scheme could deliver significant value by addressing gaps in the current complex landscape of digitalisation initiatives.

Ofgem has appointed the National Energy System Operator (NESO) as the Interim Data Sharing Infrastructure (DSI) Coordinator to lead the delivery of the DSI until the end of 2028. The DSI will be a secure framework for trusted data sharing across the energy sector.

In parallel, Ofgem has appointed the Retail Energy Code Company (RECCo) to design, build and govern a digital consumer consent solution to enable consumers to manage their data

sharing consent. A smart data scheme would provide the alignment and integration of these initiatives.

As a result, the government will continue work over the course of this year to consider whether to introduce an energy smart data scheme. We will identify and cost options on scheme design and implementation to support a potential consultation on detailed proposals.

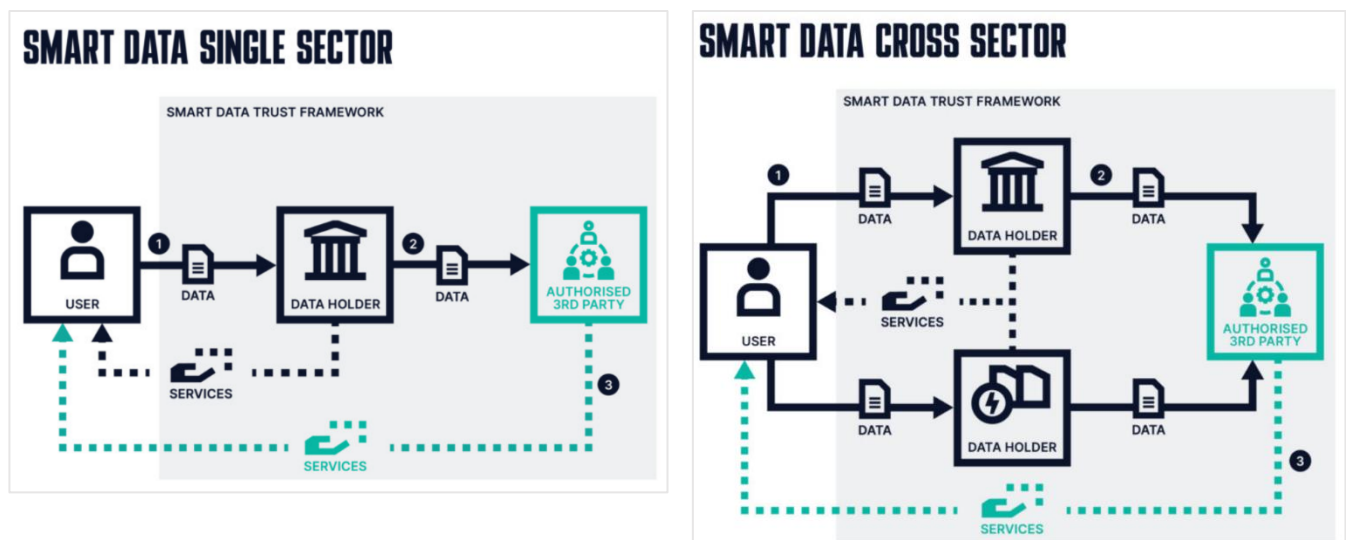
1. Introduction

The government's vision is for a world-leading Smart Data economy - an interoperable ecosystem underpinned by data portability and openness, which will empower consumers and businesses, and turbocharge competition, innovation and growth.

Smart Data is the process of sharing customer data - at the customer's request - with authorised third parties (ATPs) in a secure way. These ATPs can use customer data (often together with broader contextual data¹) to provide innovative products and services that save customers time or money. In this context, 'customers' refers to both domestic consumers and businesses of all sizes.

A Smart Data scheme is the overarching trust framework and structure that provides the rules, standards and agreements that facilitate and govern data sharing between customers, third parties and data holders.

Figure 1: Illustrative example of how a single-sector and cross-sector Smart Data scheme would work²



Open Banking is the first active example of a regime that is comparable to a live Smart Data scheme. Open Banking is a system that allows third party financial services providers to access customer banking data with the customer's consent. It is based on secure data sharing, common data standards and central governance to drive innovation and customer choice. The ability to share financial data between banks and ATPs (e.g. fintechs), or initiate payments,

¹ The Data (Use and Access) Act 2025 gives powers for a scheme to require data holders to publish or provide business data.

² [Smart Data Challenge Prize](#)

allows customers to simply and securely move, manage and make the most of their money using mobile apps.³

Open Banking has driven significant innovation and economic growth in the banking sector. There are now over 11.7 million active users of Open Banking-enabled products in the UK, and over 22.1 million banking payments are made each month.⁴ We want to explore opportunities to replicate and extend the success of Open Banking in other sectors across the economy.

To deliver this vision, the government introduced the Data (Use and Access) Act, which received Royal Assent in June 2025. The Act establishes regulation-making powers to allow government to set up new Smart Data schemes across the economy. This will pave the way for the Smart Data model to expand into sectors beyond banking.⁵

Context: the value of digitalisation and Smart Data

The UK is an international leader in data and digitalisation across the economy, and the digital sector is a strong contributor to economic growth. Digitalisation is the act of using digital technologies to change the way the system works, with the goal of enabling new and better ways of doing things, such as supporting the flexible use of small-scale assets owned and managed by customers. It is essential to integrate flexibility into the energy system and crucial to delivering clean power by 2030 and net zero by 2050.

We want to give customers more control over their own data by enabling them to share data with ATPs who can provide personalised products and services that help them save time and money. Increased data sharing has the potential to help meet the real-life needs that energy customers face on a daily basis. For example, it could help them better understand their energy usage or find the best tariff based on actual consumption, providing personalised solutions, better services and greater choice, while saving them money.

Alongside providing real value to customers, data sharing can also deliver significant environmental and economic benefits. Achieving clean power by 2030 and net zero by 2050 will require a rapid shift away from fossil fuels to cleaner, renewable energy sources. This transition to increased data sharing will help balance the grid and provide flexibility. Using energy more flexibly has huge benefits for customers by giving them more choice and reducing overall costs.

In January 2025, we published a call for evidence to understand the potential for introducing a Smart Data scheme in the energy sector. We invited views and evidence from stakeholders on the opportunities, barriers and risks to developing an energy smart data scheme.⁶

³ [Open Banking](#)

⁴ [Open Banking Limited \(2025\)](#)

⁵ [Data \(Use and Access\) Act 2025](#)

⁶ [DESNZ Call for evidence: Developing an energy smart data scheme \(2025\)](#)

This document provides the government response to the call for evidence, with an overview of the substantive points raised by respondents. Each chapter begins with a short introduction to the policy area and the questions asked, followed by a summary of responses received.

Overview of stakeholder responses

The call for evidence received 58 responses from a range of stakeholders, from large energy suppliers and network operators, to consumer groups and third party startups.

Figure 2 shows that most respondents (76%) were supportive of the development of an energy smart data scheme. The remaining respondents either felt unable to give a clear view at this early stage (15%) or were not supportive (9%) because they were not clear on the benefits of an energy smart data scheme.

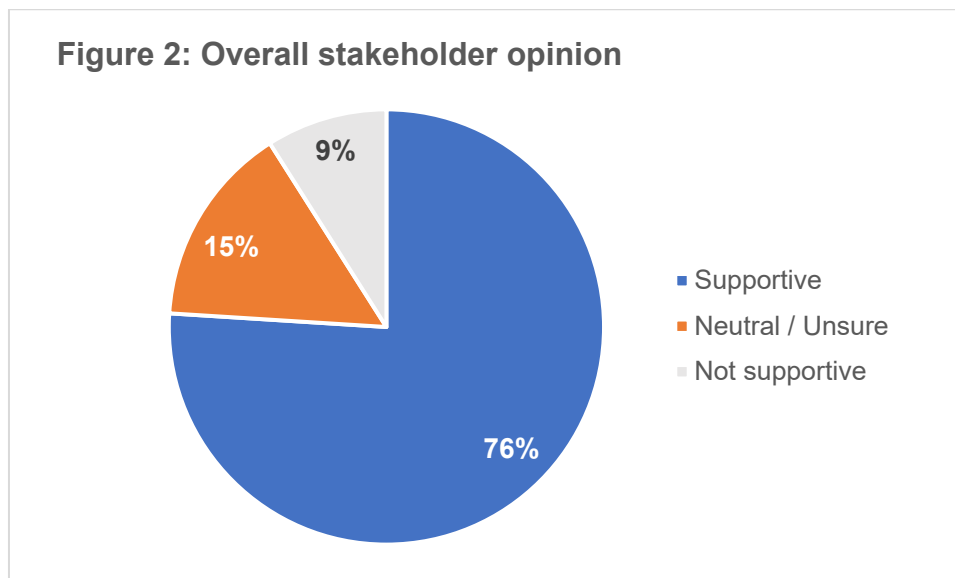
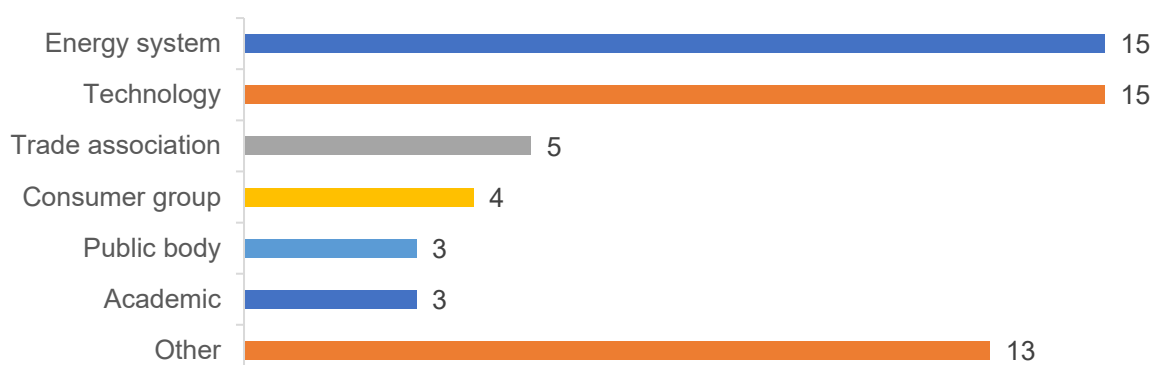


Figure 3 provides details on the type of stakeholders that responded (see annex B for more details). We have defined the stakeholder groups as:

- Energy system: Industry participants, including suppliers, network and transmission operators, and industry code and standards bodies
- Technology: Potential third-party providers of smart data services, fintechs, and energy data service companies
- Trade association: Industry bodies such as Energy UK and Startup Coalition
- Consumer group: Including Which?, Citizens Advice and Consumer Scotland
- Public body: Including the Information Commissioner's Office and local authorities
- Academic: Research bodies and specialist researchers
- Other: Consultancies, third sector organisations, financial services institutions, standards bodies, and individuals.

Figure 3: Respondents by stakeholder group



Recent developments

Since launching the call for evidence, there have been recent developments in the wider digitalisation landscape that we will need to consider as part of an energy smart data scheme.

In April 2025, Ofgem published its decision to appoint the Retail Energy Code Company (RECCo) as the delivery body to design, build and govern a digital consumer consent solution to enable consumers to grant and manage consent for sharing their energy data. Obtaining customer consent is fundamental to Smart Data, and Ofgem's work will be a key enabler to ensuring a consent mechanism that works for customers in a Smart Data scheme.⁷

Ofgem also published its decision to appoint the National Energy System Operator (NESO) as the Interim DSI Coordinator to lead the delivery of the Data Sharing Infrastructure (DSI) for the energy sector until the end of 2028. The DSI will be a secure framework for trusted data sharing across the energy sector, by reducing barriers and improving oversight and governance. While the initial phases focus on sharing largely network and system data for strategic planning, any future DSI expansion to customer data could intersect with an energy smart data scheme.⁸

Also in April, DESNZ published its government response outlining next steps for delivering the Smart Secure Electricity Systems (SSES) Programme. This includes committing to proceeding with proposals to require suppliers to share their tariff data in a standardised format.⁹ The availability of this data could help support potential use cases in an energy smart data scheme.

Alongside this government response, DESNZ is also publishing the Clean Flexibility Roadmap. This sets out government, Ofgem and NESO's plan for our future flexible electricity system. It lays out a coherent strategic direction for flexibility, commits accountable organisations to

⁷ [Ofgem Decision: Consumer Consent \(2025\)](#)

⁸ [Ofgem Decision: Governance of the Data Sharing Infrastructure \(2025\)](#)

⁹ [DESNZ Delivering a smart and secure electricity system: implementation \(2025\)](#)

actions that will unblock barriers, and establishes an enduring governance framework to regularly increase ambition annually following publication.¹⁰

¹⁰ [DESNZ Clean Flexibility Roadmap \(2025\)](#)

2. Summary of responses

In the call for evidence, we described the customer benefits of Smart Data, alongside wider environmental and economic benefits:

- **A better deal for customers:** Giving customers more power over their own data could unlock innovative products and services that simplify their lives and help them save money.
- **Decarbonisation:** Data sharing can help customers to engage with their energy usage, allowing them to install low carbon solutions in their homes and offices, or opt into flexible or green tariffs.
- **Competition and customer engagement:** Empowering customers to use their data to make informed choices can improve customer engagement and stimulate market competition.
- **Innovation:** Driving innovation by giving customers real control over their data, where innovative firms offer creative new services that use a wide range of energy data for the customer's benefit.

We asked stakeholders for their views on how an energy smart data scheme could provide the catalyst to unlock innovation, with the creation of new business models, new firms, and new products and services that makes customers' lives easier or their bills cheaper.

2.1 The Smart Data landscape (Questions 1-4)

In this section, we sought stakeholder views on the benefits of a Smart Data scheme. We then looked to understand what we could learn from Open Banking (as the only active UK example of a regime comparable to a Smart Data scheme) and international examples to inform our approach for the energy sector. In the context of the wider digitalisation landscape, we also wanted to understand views on how an energy smart data scheme could deliver additional value to existing data and digitalisation initiatives.

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.

Summary of stakeholder responses

This question received 52 responses. A large majority of respondents (75% of those who responded) agreed that decarbonisation would be a key benefit of a Smart Data scheme. More than half of respondents highlighted a number of customer benefits, including better deals for customers (63%) and improved customer engagement (56%). Some respondents specifically highlighted benefits for vulnerable customers (12%), including the alleviation of fuel poverty - for example, by facilitating access to social tariffs.

Many respondents agreed that an energy smart data scheme would help unlock innovation (48%) and economic growth (33%). Respondents identified a range of wider benefits, including: energy usage insights to support grid balancing (44%); cross-sector improvements, such as helping banks develop green finance products (23%); and improving energy security by helping distribution network operators (DNOs) to better plan, develop and operate networks (4%).

Some respondents (12%) either did not see any benefits in developing an energy smart data scheme or were uncertain that further intervention beyond existing digitalisation initiatives was required.

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.

Summary of stakeholder responses

This question received 34 responses. Respondents identified a range of insights from Open Banking. Many respondents suggested that an energy smart data scheme should follow Open Banking's approach in its adoption of common data standards and APIs (44% of those who responded), and appointing a central authority to accredit and regulate ATPs (41%).

Respondents identified the benefits of Open Banking's introduction through a regulatory mandate (24%), its focus on participation through a frictionless customer experience, and robust customer protection and consent processes (32%). Some respondents (24%) endorsed Open Banking's clear delivery roadmap, governance structure and central implementation body (Open Banking Limited), alongside its scalability to support growth with new market entrants (24%).

Some respondents suggested that energy smart data scheme development should follow Open Banking's phased roll-out approach (18%), and that adaptability and flexibility are key to allowing the scheme's growth (12%).

Some respondents (29%) identified differences between the energy and banking sectors that could require an energy smart data scheme to diverge from the Open Banking approach. For example, while banking sector data is decentralised, the energy sector includes some centralised datasets.

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

Summary of stakeholder responses

This question received 16 responses. Most respondents (69% of those who responded) identified challenges faced by Australia's centralised Consumer Data Right (CDR) Smart Data scheme. These included: low customer trust and uptake, high scheme complexity and

compliance costs that disadvantaged smaller players, and issues with ensuring consistent data standards across the industry.

Respondents identified a range of insights from CDR including:

- Ensuring adequate customer engagement and clear communication on the scheme
- Maintaining robust security measures to reassure customers that their data is protected
- Providing sufficient support for smaller industry players
- Ensuring interoperability and standardisation of data
- Setting clear timelines for proportionate enforcement responses.

Some respondents (13%) praised CDR's centralised framework and its phased sectoral roll out - starting with banking and later expanding to energy.

Other international initiatives were referenced as notable examples:

- The EU's development of a centralised and interoperable framework through its Common European Energy Data Space
- Estonia's transparent approach to data collection and sharing in its Health Information System, supported by comprehensive integration and robust security measures.

One respondent identified Transport for London as an interesting UK example of opening access to low-risk datasets via open APIs in a developer-friendly way. This has led to the development of many transport startups and benefits for customers.

Finally, some respondents (19%) highlighted the need for an energy smart data scheme to be aligned with the EU to ensure data adequacy with continued access to relevant data when needed.

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 digitalisation initiatives.

Summary of stakeholder responses

This question received 42 responses. Many respondents (68% of those who responded) thought that an energy smart data scheme would provide additional value to support existing digitalisation initiatives. Some respondents (39%) thought a scheme would address gaps by facilitating a wide range of use cases to help energy customers, such as enhanced energy usage insights, easier tariff switching, and improved access to retrofitting solutions.

Some respondents (29%) felt that the current digitalisation landscape appears fragmented with a lack of alignment between existing initiatives, and some (17%) suggested that an energy smart data scheme could address this by:

- Creating a single customer-focused, standardised, interoperable data sharing framework to facilitate better integration and coordination

- Allowing easier access and integration of datasets.

However, some respondents (17%) thought that there was not yet enough information on the scheme to answer this question, while a few (10%) thought that a scheme would duplicate other initiatives in the energy sector.

2.2 Building trust (Questions 5-11)

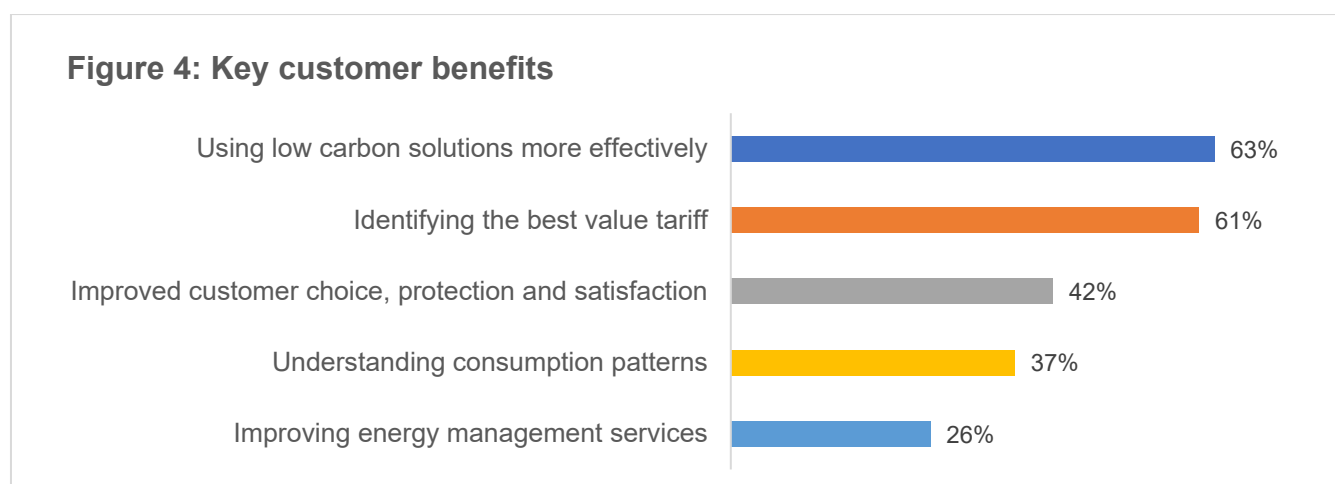
In this section, we sought stakeholder views on how to encourage the participation of all key actors involved in an energy smart data scheme. We wanted to understand how to improve outcomes for customers, encourage participation, and identify the measures needed to build customer trust while ensuring protection from harm. We also sought views on the potential incentives and barriers for industry actors and third parties.

Question 5: What energy customer needs could potentially be addressed by an energy smart data scheme?

Summary of stakeholder responses

This question received 38 responses. The vast majority of respondents (89% of those who responded) agreed that an energy smart data scheme would deliver a range of benefits for customers by helping them become more informed and engaged in the energy market.

The key customer benefits identified by respondents are summarised in Figure 4 below:



Some respondents (11%) felt that an energy smart data scheme would not deliver any benefits for customers. This group broadly aligns with those who, in response to Question 1, did not see value in an energy smart data scheme.

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

Summary of stakeholder responses

This question received 33 responses. Some respondents (27% of those who responded) felt that a well-designed energy smart data scheme could deliver benefits for all types of energy customer. However, many respondents (52%) noted that customers already engaged in the energy sector and able to afford low carbon technologies would likely benefit first.

The majority of respondents (58%) thought that an energy smart data scheme could provide significant value for vulnerable customers, including low-income and fuel-poor households, older people, and people with health conditions or impairments. Identified benefits included easier identification of those eligible for social tariffs or improved proactive support from suppliers.

Other key customer groups identified by respondents include business customers (36%), renters (33%) and homeowners (27%).

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

Summary of stakeholder responses

This question received 33 responses. A large majority of respondents (72% of those who responded) identified digital exclusion as a barrier to customer participation - for example, customers who have low digital literacy or do not have a smart meter.

Many respondents (53%) saw a lack of understanding as a barrier, particularly when the potential benefits of the scheme and reasons for providing consent are not clearly explained to customers. Similarly, some respondents (31%) cited low engagement due to customer inertia or unawareness of the scheme, while others (41%) noted that customers' perceived concerns about privacy or data security might hinder participation.

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

Summary of stakeholder responses

This question received 47 responses. Most respondents (70%) thought that clear consent and authentication guidelines are necessary to ensure customers have control of their data. A common theme was that customer data should only be used for the purpose under which consent was given, and customers should be able to withdraw their consent at any time.

Most respondents (66%) emphasised the importance of appropriate governance to oversee monitoring, enforcement and authorisation processes. Many respondents (62%) felt that scheme transparency and communication are vital to building and maintaining customer trust, so customers clearly understand how their data is used and the safeguards in place to protect

them. Similarly, some respondents (39%) stressed the importance of effective and transparent redress mechanisms to resolve disputes.

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

Summary of stakeholder responses

This question received 41 responses. Similarly to Question 8 above, respondents identified the following measures to ensure customers are protected:

- Proportionate governance structures are essential, including clear oversight from an independent authority (68%).
- Clear consent and identification guidelines, so customers understand what their consent is for (68%).
- Access to redress options to resolve disputes (56%).
- Appropriate cyber security measures (37%).

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

Summary of stakeholder responses

The question received 28 responses. Some respondents (29% of those who responded) highlighted that data sharing could lead to commercial incentives through improved customer engagement, cost-savings and efficiencies, greater innovation and better products and services. Some respondents (32%) also noted that a scheme could deliver operational incentives through improved grid efficiency.

Respondents noted that some established energy market actors may need to update legacy systems and infrastructure to provide access to customer data (57%), and highlighted the compliance costs of existing data privacy requirements like GDPR (43%). Some respondents noted that an energy smart data scheme would drive increased competition to established actors (29%), while others emphasised the need to ensure customer consent (21%).

A few respondents (7%) noted that market actors (e.g. energy suppliers, DNOs) will need to adapt to operate in an increasingly complex digitalisation landscape, where an energy smart data scheme could provide alignment across the sector.

Respondents proposed a range of interventions, including clear rules and best practice guidance on data standards (36%), standardised API and access rules (29%), a transparent governance framework (7%), customer information and engagement initiatives (7%), and financial assistance for industry (7%).

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?

Summary of stakeholder responses

This question received 35 responses. Respondents identified a wide range of barriers currently faced by third parties, including the lack of available high-quality datasets (37% of those who responded), lack of standardised data sharing processes (34%), and challenges in obtaining customer consent (37%). Some respondents noted the high onboarding times and financial costs for third parties to access data sharing platforms (23%), and the lack of clearly defined governance rules (14%). A few respondents felt there is currently no viable commercial model for third parties, due to limited resources and high potential costs (6%). Many of these barriers could be addressed by an energy smart data scheme.

Respondents also highlighted potential barriers for third party participation in an energy smart data scheme, including continued difficulties in competing with dominant market players (13%), challenges in securing customer trust (9%), high compliance costs (9%), high operational costs (9%), and high accreditation costs (6%).

2.3 Scope, use cases and prioritisation (Questions 12-17)

In this section, we sought stakeholder views on how to define the scope of an energy smart data scheme to deliver maximum customer benefit and facilitate a broad range of use cases. We wanted to understand the potential use cases and datasets for an energy smart data scheme, and how we might prioritise them in a phased rollout. We were also interested in stakeholders' views on the opportunities presented by AI and machine learning.

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

Summary of stakeholder responses

This question received 32 responses. More than half of respondents (56% of those who responded) thought that an energy smart data scheme should include all customer groups, though many suggested the phased introduction of different customer groups.

The vast majority of respondents thought that domestic (94%) and vulnerable customers (91%) should be prioritised. A key theme raised was that vulnerable customers might require additional support - for example, facilitated access to social tariffs to overcome financial barriers, accessible design to support accessibility needs, and access to both digital and non-digital communication channels to mitigate digital exclusion.

Most respondents emphasised the inclusion of SMEs (81%) and larger businesses, including industrial and commercial (59%). However, respondents also noted that the non-domestic

energy market operates differently from the domestic market, and so might require a different approach.

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

Summary of stakeholder responses

This question received 25 responses. Some respondents (40% of those who responded) thought that an energy smart data scheme should be as broad as possible to include all aspects of the GB energy mix.

Most respondents thought both electricity and gas were important aspects that should be included (80% and 76% respectively), although some noted that electricity should be prioritised as it would enable a larger number of use cases.

Many respondents specified the inclusion of smart meters (60%) and smart appliances (52%). Small-scale flexible assets were also frequently mentioned, particularly electric vehicles (EVs) (68%), batteries (64%), solar PV (64%) and heat pumps (56%).

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.

Summary of stakeholder responses

This question received 40 responses. Respondents provided a wide range of use cases that could be enabled through an energy smart data scheme. A number of domestic and non-domestic customer use cases were identified, including:

- Enhanced energy supplier comparisons (43% of those who responded)
- Tailored retrofit offerings and advice for households (38%)
- Support for vulnerable customers (33%)
- Customer insights, particularly energy usage insights to inform customer behaviour (33%)
- Carbon reporting and monitoring (33%)
- Increased consumer-led flexibility through the use of small-scale flexible assets (28%)
- Linking financial data to access green finance and support financial health checks (10%).

Beyond individual use cases, some respondents (33%) identified broader system benefits from improved data sharing, such as supporting energy system innovation, monitoring and planning for industry actors like DNOs.

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.

Summary of stakeholder responses

This question received 34 responses. A large majority of respondents (82% of those who responded) identified smart meter consumption data as the priority dataset to include. Most respondents thought that electricity consumption data (74%) and gas consumption data (68%) were minimum requirements to include in an energy smart data scheme. Many respondents (47%) thought that customers' current tariff information should be included.

In summary, respondents identified a wide range of datasets for inclusion in an energy smart data scheme. These can be grouped into two categories:

- Core customer energy datasets, which are key enablers for most use cases
- Supporting secondary datasets, which provide broader context to enhance the value of many use cases.

Figure 5: Core customer energy datasets

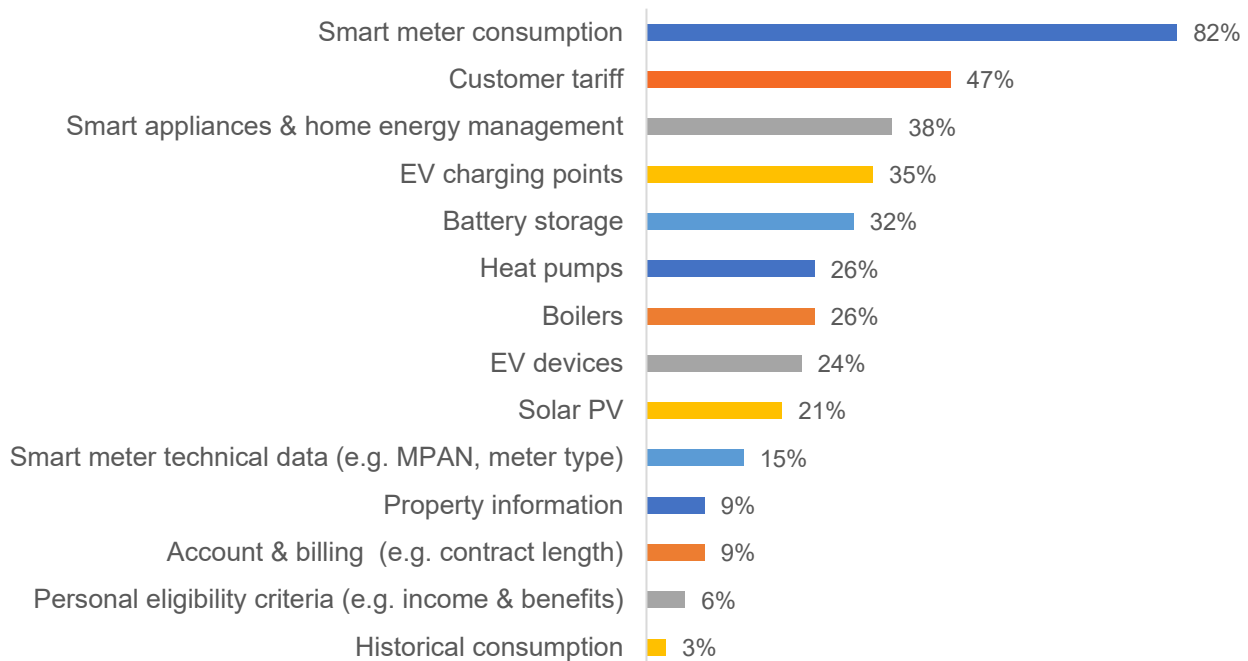
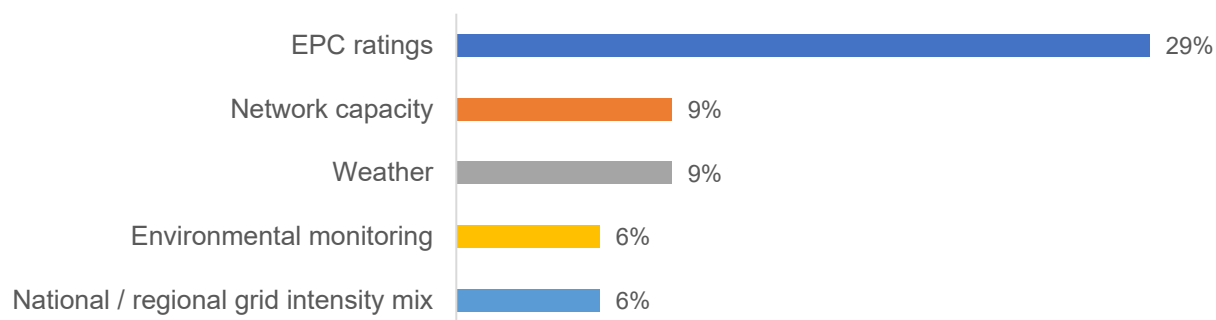


Figure 6: Supporting secondary datasets



A few respondents noted that some of these datasets may be challenging to obtain or share due to restrictions in proprietary or closed ecosystems.

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.

Summary of stakeholder responses

This question received 28 responses. Many respondents saw a range of opportunities to use AI and machine learning in an energy smart data scheme. These included providing customers with tailored recommendations and low carbon solutions (39% of those who responded), as well as use cases focused on grid optimisation, with better simulation and forecasting of demand and generation (43%).

Other opportunities identified included: market innovations, such as new energy services and business models (21%); improved ability to support vulnerable customers (11%); improved customer interactions (7%); improved maintenance and resilience of energy system infrastructure (11%); using AI to improve data quality (18%); improved data analysis (7%); and enhanced data sharing (11%).

Many respondents (48%) highlighted risks with using AI, such as the potential for bias, exclusion of certain customer groups, and unauthorised profiling. Some suggested mitigations to address these risks included clear ethical guidelines, transparency for customers on how their data is used, human oversight of AI models, and sufficient testing.

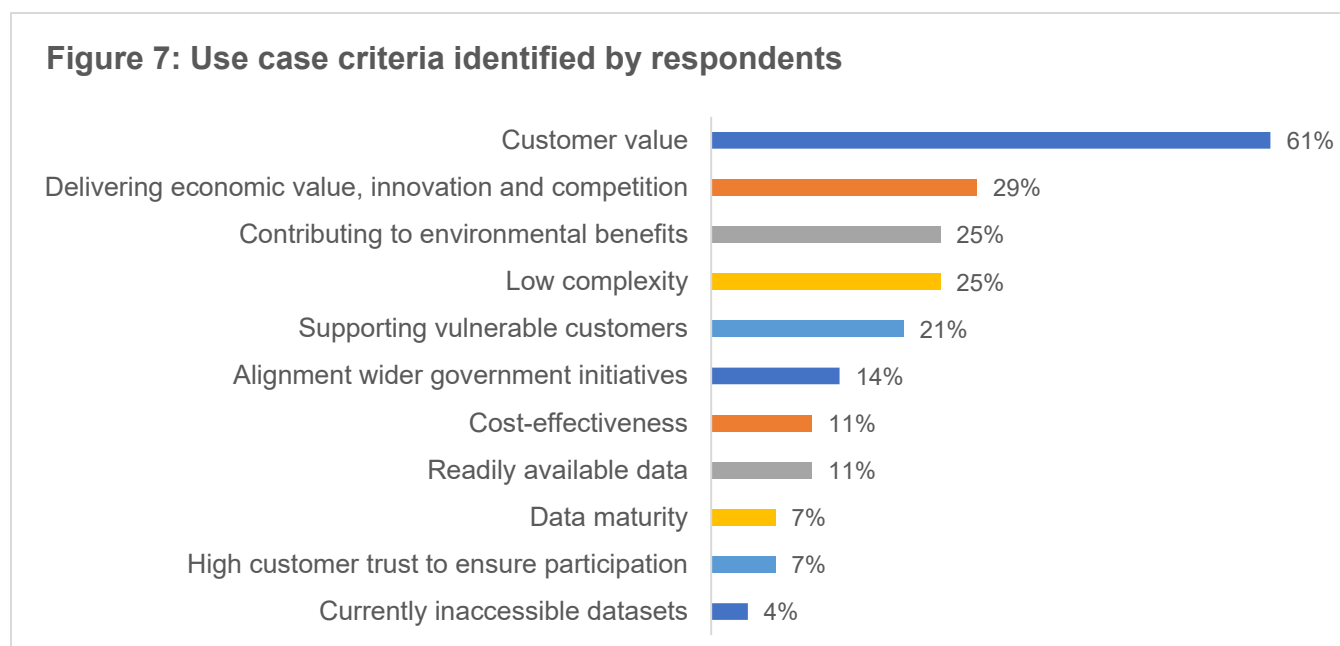
A few respondents (10%) felt that uses of AI should not be included in the scope of an energy smart data scheme, because of the perceived additional regulatory burden associated with managing AI risks.

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

Summary of stakeholder responses

This question received 28 responses. Respondents identified a wide range of criteria for how to prioritise different use cases. Many respondents (61% of those who responded) thought that customer value should be the primary basis for prioritisation.

Figure 7 below illustrates other use case criteria identified by respondents:



2.4 Scheme design (Questions 18-24)

In this section, we sought stakeholder views on how to design an energy smart data scheme. We wanted to understand both the specific design decisions that might be needed for the energy sector, and the broader considerations needed to support the development of a secure, trusted and ethical scheme. We also wanted to hear views on the roles and responsibilities necessary for a scheme, and how these should be allocated to different organisations.

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

Summary of stakeholder responses

This question received 28 responses. The vast majority of respondents (93% of those who responded) recognised that an energy smart data scheme should take into account the specific features of the energy sector.

Many respondents (39%) again noted the need to consider existing energy system initiatives and reforms, including the consumer consent solution, development of the DSI, Flexibility

Market Asset Registration (FMAR),¹¹ and the Market-wide Half-Hourly Settlement Programme.¹²

When comparing the energy sector to the banking sector, some respondents (29%) highlighted the complexity of customer-supplier relationships, particularly in the context of multi-occupancy or rental households. Others noted the decentralised nature of energy generation, enabled by customers who generate and flexibly manage their own energy (25%). Additional factors included existing data sharing arrangements between DNOs, suppliers and customers (11%), and complex pricing structures and tariffs (11%).

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

Summary of stakeholder responses

This question received 33 responses. Respondents identified a range of common principles for the design of an energy smart data scheme. These included privacy and security by design (67% of those who responded), interoperability (55%), and the use of common and open data standards (52%).

Respondents referred to different types of interoperability:

- Data interoperability: use of common data models and standardised APIs
- Technical interoperability: standardised communication and security protocols
- Cross-sector interoperability: economy-wide data sharing between different sectoral Smart Data schemes

Additional principles identified by respondents included:

- Strategic alignment with existing initiatives, including the consumer consent solution, DSI and FMAR (33%)
- A customer-focused approach, driven by customer benefits (33%)
- Transparent accountability structures and redress mechanisms (27%)
- Simplicity and accessibility for all users (27%)
- Clearly defined roles, responsibilities and governance structures (21%)
- Data availability that reflects market dynamics while supporting fair competition and protecting customer interests (21%)
- A funding model aligned with the best interests of customers (18%)
- Regulatory foundations that mandate industry participation (18%)
- Empowering customers through customer consent and control (9%).

¹¹ [Ofgem Decision: Flexibility Market Asset Registration \(2025\)](#)

¹² [Market-wide Half-Hourly Settlement Programme](#)

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.

Summary of stakeholder responses

This question received 26 responses. Respondents identified a wide range of technical specifications. These included:

- A standardised data access format and robust, RESTful APIs to enable systems to communicate with each other, supported by clear documentation to facilitate easy and secure access (46% of those who responded)
- Interoperability and alignment with other initiatives including the consumer consent solution, the Market Facilitator, FMAR, DSI, and SSES technical standards (35%)
- Rigorous and secure authentication methods, such as OAuth2 for safe login and multi-factor authentication requiring two or more verification methods to protect data access (27%)
- Appropriate consent mechanisms, including consent rules for multi-occupancy households, transferring consent when changing suppliers, and revoking consent (23%)
- Role-based data access controls to ensure participants only access relevant data (19%)
- Risk-based identification approaches (12%)
- Built-in scalability to accommodate increased data volumes and support innovative AI and machine learning applications (12%)
- High quality data required (8%).

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

Summary of stakeholder responses

This question received 26 responses. Respondents identified a range of privacy and security issues, broadly related to the roles and responsibilities of different scheme participants in accessing, handling and sharing personal data.

Respondents identified the need for customer control of data and appropriate customer consent mechanisms (50%), user identification (16%), and alignment with existing data protection and security measures (35%) for handling personal data. Some respondents emphasised the need for a proportionate governance framework (12%) and transparent redress mechanisms (19%) to protect all users.

Some respondents (12%) thought it was crucial to align with privacy and security measures in other digitalisation initiatives - for example, the SSES programme, the consumer consent solution, the Market Facilitator and FMAR programmes.

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.

Summary of stakeholder responses

This question received 29 responses. Some respondents (21% of those who responded) felt unable to give a view at this early stage, as further scheme development could influence how responsibilities are allocated. Others (21%) stressed the importance of aligning with existing digitalisation initiatives to avoid duplication, ensure clarity on roles and responsibilities, and ensure that industry developments are reflected across all workstreams.

Some respondents (34%) supported the creation of a new central governance body for scheme design and implementation, although these respondents had no clear preference on whether this should be an energy-specific or economy-wide body.

Some respondents (34%) suggested that Ofgem should be responsible for governance and oversight, while a few respondents (10%) thought Ofgem would also be the most appropriate implementation body.

In addition to Ofgem, some respondents (21%) proposed a range of public bodies who could be responsible for elements of scheme design, implementation and oversight, including DESNZ, DBT and the Information Commissioner's Office (ICO).

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.

Summary of stakeholder responses

This question received 23 responses. Respondents generally agreed with the roles and responsibilities outlined in the call for evidence, including functional requirements on data classification, access rights and accreditation, and supervisory requirements on monitoring, enforcement and reporting.

Respondents drew parallels with Open Banking, highlighting the following functions:

- A governance body should retain oversight, with clear powers to take action on non-compliance, contractual disputes, and operational incidents (85% of those who responded)
- An enforcement mechanism to ensure accountability (60%)
- An accreditation body to implement and oversee the authorisation process (50%)
- A defined accountability framework, including clear routes for customer redress (50%).

A few respondents (5%) noted that it is difficult to define roles at this early stage, while others (5%) again stressed alignment of roles and responsibilities with existing initiatives such as SSES, FMAR and the consumer consent solution.

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

Summary of stakeholder responses

This question received 20 responses. Respondents outlined a number of functions and responsibilities that should be centralised. Most respondents (75% of those who responded) thought that functional responsibilities should sit with a central body. In particular, respondents specified data standardisation (55%), accreditation requirements (30%), and defining roles for access and use (25%), as key functional responsibilities.

Many respondents (60%) emphasised the importance of centralising supervisory responsibilities, primarily to ensure cross-sector integration and interoperability. Key supervisory requirements identified included establishing a trust framework (35%), providing a redress mechanism (20%), enforcing standards (15%), monitoring (15%) and reporting (15%).

2.5 Delivery (Questions 25-29)

In this section, we sought stakeholder views on the delivery of an energy smart data scheme, including reasonable implementation timescales and alignment with other industry developments. We also wanted to understand the potential challenges and risks associated with developing a scheme, as well as how costs could be distributed among scheme participants.

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.

Summary of stakeholder responses

This question received 27 responses. Many respondents (59% of those who responded) felt unable to give a view on the feasibility of an energy smart data scheme at this early stage of development. Some (33%) thought that an energy smart data scheme would be feasible to deliver if carefully designed, citing the successful example of Open Banking.

Many respondents (48%) highlighted that scheme development would need to align with all existing initiatives, such as the SSES programme, FMAR and consumer consent solution.

Respondents identified a range of factors which could affect feasibility, including: low customer engagement (19%), short scheme development timescales limiting contribution to Clean Power 2030 (11%), limited industry capacity due to investment in other reforms (7%), inadequate legacy systems (7%), high scheme set-up costs (7%), and inaccessible or unavailable datasets (4%).

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.

Summary of stakeholder responses

This question received 35 responses. Respondents highlighted a range of challenges to consider, which have broadly been explored in more detail in earlier sections.

Operational and technical challenges were raised by many respondents. These included the need to address system capacity and streamline processes (51%), ensure sufficient data quality and accuracy (46%), and overcome technical challenges like inadequate legacy infrastructure (23%). Some respondents also highlighted the importance of proportionate cyber security measures (14%) and the need to manage the fragmented digitalisation landscape (20%).

User-related challenges were also noted. Respondents emphasised the importance of securing customer engagement, protection and trust in the scheme (31%), ensuring appropriate customer consent in line with the consumer consent solution and privacy regulations (20%), and avoiding customer exclusion (26%). Preventing data misuse was another concern (29%), alongside the need for clear processes to manage unintended consequences for users, such as unintended data sharing due to unclear consent processes (6%).

Governance and market structure challenges included ensuring fair competition (14%) and fair distribution of scheme costs (11%). Respondents also raised legal, ethical, and regulatory issues (9%), as well as the risk of market fragmentation if data-sharing models diverge (6%). A few respondents cautioned against a lengthy development process that could delay scheme benefits (3%).

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?

Summary of stakeholder responses

This question received 21 responses. Many respondents (57% of those who responded) expressed caution about the potential high costs of the scheme, though were less specific about where these high costs might arise. Some (33%) stressed the importance of conducting a cost-benefit analysis. Others (19%) highlighted the importance of relatively high adoption to ensure the benefits of the scheme outweigh its costs. Some (29%) suggested that industry costs could be reduced by passing a proportion onto customer bills.

A few respondents (14%) identified the need to consider existing costs for other industry initiatives, such as the DSI and consumer consent solution, or were concerned about the potential competition impact on smaller market participants (10%).

Respondents also identified a range of industry implementation costs, including: IT and legacy infrastructure upgrades (48%), system development (24%), compliance (19%), staff training (14%), security and cyber security (14%), and maintenance (14%).

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

Summary of stakeholder responses

This question received 22 responses. Many respondents (59% of those who responded) advocated for a hybrid funding model, where costs are distributed across multiple scheme participants. A range of options were suggested, including introducing industry levies or allocating costs to data holders. Some respondents (36%) supported a user-pays approach, emphasising that only those participating in the scheme should bear its costs.

A few respondents (9%) thought that costs should be borne by industry, distributed across suppliers and service providers, similar to the distribution of costs at the introduction of Open Banking. A small minority felt that costs should be covered directly through general taxation (5%).

As highlighted in earlier sections above, a few respondents (9%) suggested that the scheme should carefully consider existing industry costs for other digitalisation initiatives (such as FMAR, the SSES programme, DSI, and consumer consent solution).

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?

Summary of stakeholder responses

This question received 21 responses. Some (25%) respondents reiterated the importance of cross-sector interoperability to enable use cases that maximise the economic and societal value of smart data. A few (10%) highlighted the need for the scheme to be flexible and adaptable to future market changes.

Other key themes included the benefits of using synthetic data to address data gaps or data access limitations. A few respondents (5%) suggested a greater emphasis on whole-systems data to enable integrated energy planning.

3. Government response

The Smart Data landscape

There was strong consensus among respondents that an energy smart data scheme has the potential to deliver wide-ranging benefits for customers, industry, the energy system, and the wider economy. Drawing on the experience of Open Banking, respondents supported the adoption of common data standards and central accreditation. We will also consider key lessons from abroad, particularly when addressing the challenges of low participation driven by scheme complexity and costs.

Respondents consistently emphasised that any energy smart data scheme should align with existing digitalisation initiatives. Our focus for potential development will be on designing a scheme that complements existing initiatives and adds value, rather than duplicating efforts elsewhere.

Building trust

Respondents identified a number of customer benefits, including finding the best deals, understanding consumption better and having greater choice. While many respondents felt that a well-designed scheme would deliver benefits for all energy customers, some specific customer groups might especially benefit, particularly vulnerable customers. Respondents emphasised the importance of inclusive design to address participation barriers such as digital exclusion and low engagement. We will work with stakeholders to understand how a scheme could unlock and maximise value for different types of vulnerable customers.

It is also clear we will need to consider how to build customer trust through transparency and clear rules and guidelines to protect customers. We will continue working with the Department for Business and Trade (DBT) to build on its research into inclusive design principles for Smart Data.¹³

Respondents highlighted the commercial incentives for established energy actors to share data, while noting that some actors will need to update legacy infrastructure - as was the case in Open Banking. Some pointed to the need for a streamlined approach to consent, which could be addressed through the consumer consent solution. We will also consider how to design a scheme with streamlined processes to minimise the burden on smaller third-party providers.

¹³ [DBT Design principles for inclusive smart data schemes research \(2023\)](#)

Scope, use cases and prioritisation

The general view was that an energy smart data scheme should include a broad range of customer groups - including domestic and vulnerable customers, SMEs and larger businesses - to ensure maximum value and deliver clean power objectives. While most respondents thought both electricity and gas should be included in scope, some noted that electricity should be prioritised to facilitate more use cases.

Most respondents particularly emphasised the need to include core customer energy data from smart meters, smart appliances, small-scale flexible assets and tariff information, alongside broader contextual (non-energy) data to support use cases.

Many respondents felt we should prioritise use cases based primarily on customer value, but did not have clear views on how we might phase the introduction of a scheme - for example, through different levels of data access for third parties (similar to the development of Open Banking from read-only access to payment initiation). We will consider these factors in developing options on scheme development, alongside opportunities for using AI and machine learning, and the appropriate granularity and consent mechanisms for sharing data.

Scheme design

Many respondents recommended drawing on Open Banking's experience, particularly in terms of alignment of common principles, centralised functions and technical standards.

Respondents were also very clear that cross-sector interoperability is crucial for a successful scheme to unlock the widest potential for innovation.

However, there are some key differences between the banking and energy sectors to consider in scheme development. In particular, the customer in Open Banking is typically the account holder, while defining the customer in the energy sector - and therefore who consent should be sought from - can be more complex, especially in multi-occupancy or rental households. We will need to consider these complexities to ensure appropriate data access and consent mechanisms.

Respondents were clear that scheme design must consider existing data sharing arrangements and wider digitalisation initiatives. In particular, we will continue to work closely with Ofgem and RECCo on the design of the consumer consent solution, to ensure alignment with a potential energy smart data scheme.

Respondents had mixed views on which bodies should be responsible for scheme design, implementation and regulation. We will continue working with DBT and industry stakeholders to understand options for the most appropriate bodies to deliver these functions.

Delivery

Respondents raised a range of issues that could impact delivery. In particular, respondents were very clear on the importance of aligning delivery with existing industry initiatives and unlocking potential synergies to reduce costs. We will consider how to secure customer engagement, protection and trust in a potential scheme, alongside how to address the operational, technical and security issues raised.

While some respondents did not have a clear view on feasibility at this early stage, others pointed to the development of Open Banking as a model that demonstrates what can be achieved with the right foundations, including its technical infrastructure, regulatory environment, and governance.

Respondents noted implementation costs - particularly for legacy infrastructure upgrades - but also emphasised the importance of conducting a cost-benefit analysis to guide decision-making. Many respondents favoured a hybrid funding model, with costs distributed across multiple scheme participants to ensure fairness.

Views were mixed on which bodies should lead on scheme design and implementation. We will continue to engage with stakeholders to determine options for the most appropriate delivery arrangements, while also exploring proportionate funding models that reflect the diversity of scheme participants.

Next steps

The government will continue work over the course of this year to consider whether to introduce an energy smart data scheme. We will identify and cost options on scheme design and implementation to support a potential consultation on detailed proposals.

Scheme development options will include consideration of:

- Customer protection rules to drive trust and participation
- Priority datasets, use cases and phasing approaches
- Implementation and governance, including roles and responsibilities
- The technical mechanism for data transfers
- The overarching trust framework, including security and authentication mechanisms
- Accreditation principles to ensure interoperability with other schemes
- The benefits delivered by different options
- The implementation costs of different options
- Funding mechanisms.

We will continue to work with stakeholders throughout the policy development process. This includes working closely with Ofgem, RECCo and NESO on the development of the consumer consent solution and the DSI, and working with DBT on potential economy-wide Smart Data functions.

Annex A: Call for evidence questions

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.
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.
3. What can we learn from international examples of Smart Data schemes for our approach in the energy sector?
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 digitalisation initiatives.
5. What energy customer needs could potentially be addressed by an energy smart data scheme?
6. Which customer groups might benefit most from an energy smart data scheme and why?
7. What specific challenges or barriers to participation might be faced by particular customer groups?
8. How can we build and maintain customer trust in an energy smart data scheme?
9. What measures should be considered to ensure customers are protected?
10. What are the potential incentives and barriers for established energy market actors to provide access to customer data (e.g. operational, commercial, legal)? What interventions might be necessary?
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?
12. What customer groups should be included in an energy smart data scheme and why?
13. What aspects of the GB energy mix should be included in an energy smart data scheme and why?
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.
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.

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.
17. How should we prioritise different energy use cases? Please consider aspects such as phasing, complexity, data accessibility and participation.
18. What unique or specific features of the energy market (and/or energy data) should we consider when developing a Smart Data scheme?
19. What common principles are needed to support the development of an energy smart data scheme and why?
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.
21. What specific privacy and security issues should be considered when developing an energy smart data scheme and how might these issues be addressed?
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.
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.
24. What common functions and responsibilities should be centralised to enable interoperability with other markets outside the energy sector?
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.
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.
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?
28. How might implementation and ongoing management costs of a scheme be distributed across industry participants in an energy smart data scheme?
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?

Annex B: Respondents

ADE	Greater Manchester Combined Authority	SSE Energy Solutions and SSEN Distribution
Arniston Ltd T/A Snugg	IceBreaker One	Startup Coalition
Axle Energy	Information Commissioner's Office	The MCS Foundation
Bankers for Net Zero	Mastercard	TransUnion
BEAMA	National Energy Action	UK Power Networks
BEnergy Efficient	National Grid	UKAS
Brighton & Hove Energy Services Co-operative (BHESCo)	National Energy Action	University College London
Calisen & Advizzo	NESO	Uswitch
Centre for Net Zero	Northern Powergrid	Wales & West Utilities
Centrica	Nous	Which?
Chameleon Technology	Octopus Energy	
Citizens Advice	Ohme	
Consumer Scotland	Open Banking Limited	
EDF	POWWR	
ElectraLink	Raidiam	
Elxon	RECCo	
Energy Ombudsman	Scottish Power	
Energy UK	SEC Privacy Sub Committee	
EON	Smart DCC	

* Excluding individual members of the public and respondents that requested confidentiality.

This publication is available from: www.gov.uk/government/calls-for-evidence/developing-an-energy-smart-data-scheme

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