

## Energy UK response to developing an energy smart data scheme call for evidence

10<sup>th</sup> March 2025

### Executive Summary

Energy UK is the trade association for the energy industry with over 100 members - from established FTSE 100 companies right through to new, growing suppliers, generators and service providers across energy, transport, heat and technology. Energy UK's members deliver nearly 80% of the UK's power generation and over 95% of the energy supply for 28 million UK homes and businesses. The sector invests £13bn annually and delivers nearly £30bn in gross value - on top of the nearly £100bn in economic activity through its supply chain and interaction with other sectors. The energy industry is key to delivering growth and plans to invest £100bn over the course of this decade in new energy sources.

The energy sector supports 700,000 jobs in every corner of the country. Energy UK plays a key role in ensuring we attract and retain a diverse workforce. In addition to the Young Energy Professionals Forum, which has over 2,000 members representing over 350 organisations, Energy UK is a founding member of TIDE, an industry-wide taskforce to tackle Inclusion and Diversity across energy.

Energy UK welcomes the Government's work towards creating an energy smart data scheme. Customer protections will be essential to ensure fair scheme design. A clear, simple, trusted consumer consent solution will ensure customers understand the scheme. It must be clear what a customer is consenting to, what purposes are agreed, and who manages their complaint in the case of issues. This becomes particularly important if data is shared beyond the energy sector as Ofgem may not be able to intervene, and third parties will not be subject to the same, strict regulation suppliers are.

With likely high costs for a robust scheme, the costs should be fairly spread across those accessing the data and should not fall solely on suppliers. Given the need to reach Net Zero and our broader climate goals, smart data schemes should align and not hinder existing digitalisation workstreams.

If you have any questions about this response or wish to engage with Energy UK and its members, we would welcome further engagement.

Kind regards,

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## **Consultation Questions**

### **Benefits of smart data**

- 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.**

A digitalised, flexible energy system is a more efficient one, bringing down costs for both the consumer and the broader energy system.

A well-designed smart data scheme could also help to deliver a smart and secure electricity system, allowing consumers to engage safely in energy-related activities—such as participating in data-sharing initiatives and flexibility markets—whilst enabling room for innovation in the GB retail market.

The areas below are where a smart data scheme could deliver most value, and use cases enabling these areas should be prioritised:

- Domestic customers:
  - Helping to lower energy bills through increased efficiency and personalised insights
  - Giving customers greater control over data sharing
  - Enhanced consumer protections, ensuring fair access to services and safeguarding against data misuse
  - Opportunities for small businesses to benefit from smarter energy management tools.
- System benefits:
  - Grid optimisation through improved demand forecasting, reducing strain and inefficiency on the GB energy system and local networks
  - Support for demand flexibility services, including consumer-led flexibility.

There are also use cases outside of the energy system, particularly around carbon reporting and low carbon technology financing.

As an example of benefits from the smart meter rollout, the scheme is expected to generate £6 billion net benefit,<sup>3</sup> with £5.6 billion in bill savings for households across the UK. When a significant number of people have smart meters, the system becomes more efficient — lowering energy bills, increasing reliability, and supporting flexible energy services.

The scheme should have a clear cost benefit analysis that it can deliver value for the customer, as this in turn will benefit the whole energy system through decreased costs and increased efficiencies.

### **Open banking**

- 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.**

The banking sector is not a direct match with the energy system. The banking sector is fully decentralised; however, the energy system has some centralised datasets.

This makes comparison with Open Banking more nuanced, and whilst we recognise the similarities with the focus and output of Open Banking scheme, care should be taken given the increased complexity of the energy sector.

However, there are benefits that should be recognised, for example the benefits of two factor authorisation within Open Banking, with an easier threshold for reading data on a single occasion. If an Authorised Third Party (ATP) wants to do something with the data, or wants to have access to ongoing readings, there needs to be more rigorous accreditation.

In an energy smart data scheme, simple one-time data access (e.g., only reading energy data) should have an easier threshold, while ongoing access or actions based on that data (e.g., automated switching, or providing advice on switching) must require thorough regulation and stronger consumer consent controls.

Open Banking is regulated by the Financial Conduct Authority (FCA). Unlike financial regulators, Ofgem's jurisdiction may not apply if data is used outside the traditional energy market. A clear regulatory framework should define responsibilities across energy, technology, and consumer protection agencies, and we would urge alignment with the enduring Data Sharing Infrastructure governance framework as there will be overlap over the mechanisms and trust frameworks on how data is shared.

It will be valuable to work closely with the Central Data System Providers (CDSPs) to aid with data sharing within the scheme as a first step, given their centralised datasets and existing governance mechanisms to deliver the requirements of a data sharing scheme.

The energy sector faces strict regulation through Ofgem, with suppliers subject to the Supplier License, and emerging regulatory frameworks for aggregators and third-party intermediaries (TPIs). In any cross-sector data sharing initiatives, third parties may not be subject to the same regulatory requirements as the energy sector. An energy smart scheme should not be a loophole to access personal customer data without clear, defined guardrails to protect both the customer and the energy system.

## **International examples**

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

On customer asset data exchanges (for example in the registration of chargepoints, heat pumps), any developments through a smart data scheme will need to align with those overseas so that wider markets are aligned and to increase customer liquidity.

These international developments include:

- i) EU-funded OneNet programme (includes a flexibility register for market operations)
- ii) Australian Energy Market Operator's DER Register (registers devices at installation to support grid management)
- iii) German Network Agency's Markttammdaten register registers generation and large consumption)

Energy UK urges the Government to ensure data adequacy with the European Union continues to apply to ensure continued access to relevant data when needed.

### **Wider GB data sharing**

#### **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.**

A smart data scheme would bring additional value by bringing together datasets from across the energy sector, not only supplier data but also linkages with stakeholder and Government data.

Energy UK would highlight the numerous ongoing digitalisation programmes, many operational and many in late stages of development. A smart data scheme therefore should join up the many live workstreams, including timescales, regulatory requirements, and international standards.

In the last year, the following data initiatives were consulted on:

- Flexibility market asset registration
- Data sharing infrastructure
- Smart Secure Energy System (SSES), including tariff interoperability and energy smart appliance standards
- Consumer consent

The smart data scheme should therefore identify any gaps of current workstreams, providing customers and industry with transparency and alignment that may be missing. It should not slow down the progress in these programmes, particularly SSES, given 2030 targets for low carbon technologies and the need for customer engagement and protections to give consumers the confidence to invest.

These wider schemes should be fully referenced in any proposed scheme, as they all relate to the creation of innovative products, actions of third parties, and customer control within a digitalised energy system. They also cover much of the energy sector, including customers, networks, devices, and markets.

For an effective smart data scheme, it is important that lessons are learned from previous efforts under Open Networks and ESO, Ofgem, and Government workstreams to date, including the 'Midata' scheme.

It will be essential for actors across the sector to communicate effectively, since no one participant will have access to the 'whole picture'. The customer's supplier, for

example, is not party to whether the customer has a contract to provide flexibility to another flexibility service provider (FSP). Improving network visibility of assets on the system and visibility of likely behaviours from those customers will also be important so that network operators can access appropriate data.

## **Improving customer outcomes**

### **5. What energy customer needs could potentially be addressed by an energy smart data scheme?**

A well-designed energy smart data scheme could provide significant benefits to various customer groups by enabling informed decision-making, expanding access to tailored products beyond energy supply, and simplifying processes such as tenancy changes and smart asset registration.

As smart technology adoption increases, a well-designed scheme should not only cater to the tech-savvy early adopters but to a broader audience, ensuring equitable benefits for all.

The scheme could help not only through a scheme based on supplier data but by also looking further to also include datasets from broader stakeholders and the Government. Linking together datasets across the sector, with informed consent and protections in place, would aid a whole-systems approach to digitalisation.

#### **Customer vulnerability and data matching**

As the industry moves towards a more digital and sustainable future, secure and efficient data sharing is essential for serving vulnerable customers who continue to need support. An estimated 23% of people on low income with low or no savings do not qualify for a means-tested benefit<sup>1</sup>, or do not claim the benefits to which they are entitled. A smart data scheme could help ensure they receive priority services, benefit from personalised support and avoid energy disconnections.

Expanding the use of means-tested and non-means-tested benefits data would improve the targeting of support schemes (e.g. Warm Homes Discount, Energy Company Obligation) and enable tiered support rather than a flat rate, meaning that more people in need of support can get access to help when needed.

Supporting the development of a joined-up Priority Service Register which can highlight to suppliers across utilities which customers may need additional support.

Energy suppliers already have better data than other utilities and are working with Ofgem to facilitate better energy network and water company identification. However, using Government data would ensure that even those not engaging with their supplier or service provider still receive support, particularly during power outages or times of crisis. This includes targeted support funds like proactive

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<sup>1</sup> [Joseph Rowntree Foundation \(2023\) On a low income, but not claiming means-tested benefits](#)

prepayment meter (PPM) top ups and Additional Support Credit (ASC) to ensure the most in need customers receive support when needed.

Any smart data scheme needs to have simple, clear, trusted consent mechanisms for the customer to be in control of their data.

#### 'Smart' homes: Electric Vehicle (EV) Owners, Solar Panels, Home Batteries

As more households adopt smart devices, a smart scheme could ease the way their flexible assets can be optimised. A smart scheme could help to simplify grid interaction, improve system and customer cost savings, and enhance efficiency of the device, the market, and the system. This could also help environmentally conscious households understand and reduce their energy usage.

#### Businesses

Small non-domestic data sharing could give businesses greater control over their energy consumption and could be equally helpful as domestic data. However, we would note that the non-domestic market operates very differently from the domestic market, where energy outcomes for the domestic market do not equally translate into the complex, higher energy needs of the non-domestic market. This may need a different approach than the domestic market.

Energy UK would stress that there are numerous schemes in place already working to facilitate these solutions, and a smart scheme should not slow their progress down.

Additional information on use cases can be found in response to question 14.

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

See question 5.

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

Explaining consent in the energy system is difficult and needs careful consideration to ensure all customers – particularly vulnerable customers – fully understand what services they are consenting to.

Energy UK's response to [consumer consent solution](#) outlines some of the challenges and timeframes in delivering this.

Energy UK urges ATP alignment with [TPI regulation](#). There is a need for energy suppliers to be as aware as is possible of whether customers are on the Priority Services Register (PSR) and/or have received the Warm Home Discount (WHD) through the TPI. This information should be passed along to the new supplier to facilitate setting up a customer's account with the appropriate support and ensure continuity in WHD provision. New or smaller suppliers might not offer the WHD, so

it's crucial for a good customer experience that TPIs ask customers whether they have previously received the WHD. If they do not, there's a risk that vulnerable or fuel-poor households could end up switching to a supplier that does not provide the support they need.

Energy UK would welcome further details regarding how the proposed scheme should function (and how to signal to customers where any protections may differ).

Customers who no longer have in-home displays (and who don't have other means of accessing verification methods) may have additional needs when verifying their identity, as this is often used for customers to say who they are.

The approach should ensure fairness for residents in multi-occupancy households and explore how third-party services requiring energy data access are available to all occupants—not just the bill payer.

It is important to consider how end-users are engaged. If there are multiple stakeholder groups, Citizen's Advice is unlikely to be able to resource them. The Australian initiative the CER Data Exchange has struggled to involve end-users. It will be important to learn from this process and how they are working to engage demand side/ consumers as a result.

## **Protecting customers**

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

Ensuring customer trust in an energy smart data scheme requires an approach that prioritises transparency, accountability, and clear governance structures. Given the complexities of cross-sector data sharing, it is essential that there are trusted safeguards which protect both consumers and the energy system.

There needs to be clear processes for redress. This is particularly important for data schemes, as once data is shared cross-sectors, Ofgem will not necessarily be the primary regulator for the data. It is not clear the level of engagement the Information Commissioner's Office (ICO) will have with this scheme, and whether they would be responsible for complaints processes.

To provide clarity and reassurance to customers, there must be a defined regulatory framework outlining:

- Which body will oversee different aspects of consumer protection.
- How customers can escalate complaints and seek resolution.
- What accountability measures will be in place for third parties accessing data.

The customer needs to have full understanding of what they are consenting to, and this should not be hidden in small print – it needs to be clearly explained. We note the challenges in doing this from the consumer consent platform development, and the proposed solution should be road-tested with relevant community groups and

their users to ensure that the solution and the supporting processes and communications support wide access.

The benefits of data-sharing should be reinforced through trusted channels. These communications should illustrate the benefits in everyday uses and explain customer rights over their data and how to modify these.

Recent efforts by Ofgem to enhance regulation and customer protections for TPIs are welcome. However, greater clarity is needed regarding the interactions and distinctions between TPIs and ATPs.

For example, an energy supplier could be considered an ATP, which could enable access to a customer's previous energy consumption data when they switch from a different supplier. This could allow the new supplier to better predict the customer's energy demand, ensuring more accurate forecasting, efficient hedging strategies, and appropriate tariff recommendations. Clearly defining these roles and responsibilities will help prevent regulatory gaps and potential consumer harm.

Energy UK understands that the third parties accessing data will be accredited, and this accreditation process will be subject to consultation. This is a crucial safeguard, as seen in the challenges customers have previously faced with unregulated TPI brokers.

As outlined in response to question 2, if they are advising on a customer's data, controlling a customer's energy, or using the customer's data, parties would need to be regulated in that role, beyond data management regulations.

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

Energy UK welcomes the many active workstreams on raising customer protections and device standards for low carbon technologies and customers engaging in DSR activities. As the energy landscape becomes increasingly data-driven, it is essential to ensure that consumer rights, data security, and system integrity remain a part of these developments.

Through the SSES workstream, there are several customer protections related to the data sharing in the energy system. For device-level data, the mandating of ETSI 303 645 will provide a basic level of customer data protection. However, given the evolving risks associated with cloud-based data storage and remote access, further work may be needed to assess whether additional protections are needed to enhance security for cloud-stored customer data.

Similarly, the licensing framework is examining whether further data privacy requirements are needed for load controllers beyond those covered under UK-GDPR. Given the increasing role of load control technologies in managing energy demand and flexibility, there must be alignment between these privacy outcomes and broader data security standards.

Any consumer consent model must meet stringent security protections for both customer and system data. A well-designed consent framework should ensure that customers have clear and informed choices about how their data is used; data

access is strictly limited to accredited entities that comply with security standards; and customers retain control over their data, with easy mechanisms to modify or withdraw consent.

As outlined in response to question 8, additional work on the accreditation of third parties gaining access to customer data would be welcome in ensuring they meet the necessary security regulations, compliance, and best practice to protect customer data. This will be essential to ensure customers are protected from potential misuse of their data, as seen through unregulated TPIs.

The smart scheme should be coordinated with the other governance models in data sharing, namely the National Energy System Operator (NESO) and the body delivering consumer consent.

### **Incentives and barriers to participation**

**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?**

See question 20.

**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?**

Third parties currently need to go through rigorous regulations to access data, such as Smart Energy Code (SEC) Section I, but regulations in this regard are important to ensuring that they have the correct data management protocols in place, including the right consent mechanisms.

Any data-sharing platform should be mindful of issues that hampered the smart meter rollout:

- Contracting multiple service providers to provide a single system with increased project complexity (and with it, costs and deployment time).
- Customer engagement focussed on the smaller personal benefits rather than the deeper (and potentially more compelling narrative of) system benefits failed to convince customers.
- Challenges in ensuring digital infrastructure is compatible with non-standard customers (for example, those with non-standard tariffs such as smart prepay).

Across the industry, many data sets are either incomplete or formatted in ways that introduce unnecessary complexities. Standardisation will be another critical element of how effective a new framework could be.

### **Scope of an energy smart data scheme**

#### **12.What customer groups should be included in an energy smart data scheme and why?**

See question 6.

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

Both electricity and gas should be under consideration, however electricity will be notably more important for several use cases due to the time of use aspect.

Tariff and consumption data, with the possibility of including data from previous suppliers should be included. This should be done carefully to ensure best practice on customer data management.

### **Energy use cases**

#### **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.**

As outlined in Energy UK's response to Ofgem's [Governance of Data Sharing Infrastructure](#) consultation, potential use cases are as follows:

System benefits:

- Support, management, and direction for other workstreams, such as Delivering a Smart and Secure Energy System (SSES), digital infrastructure, consumer consent, and cybersecurity.
- Providing accountability on data integrity and data standards.
- Access to standardised data points.
- Making it simpler for generators, aggregators, energy storage providers, and DSR providers to create new, innovative solutions for both consumers and the system.
- Help in providing the most competitive and best suited options for the needs of the energy system. It can therefore provide a core component of enabling and developing competition in the sector while facilitating the Government's objectives.

Customer use cases are outlined in response to question 5.

### **Datasets**

#### **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.**

Energy UK welcomes the list outlined in the document, with the addition of energy storage technologies.

It would be helpful to understand if this scheme would expand to cover things like Feed in Tariffs (FITs) and the Smart Export Guarantee (SEG).

Since these processes are dependent on accurate asset registration, they should be complimentary to the work of the asset visibility programme, including flexibility market asset registration (FMAR).

There are complexities around what is classified as personal data. Export data will be important for customers with smart assets, however there are concerns that this is personal data (see SLC47).

### **Innovating with AI**

**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.**

Energy UK would highlight Ofgem's recent work to provide guidance for AI in the energy sector, and would suggest alignment with this programme to ensure safe, secure, fair and sustainable use of the emerging AI software and applications.

Clarification on whether the guidance is applicable to all parties across the supply chain, or to licensed entities only, would be welcome.

Potential use cases:

- Deep learning could help to provide summaries of where issues arise for customers.
- Generative AI could help improve efficiencies for suppliers, ensuring they can reply to customer queries in a targeted way.
- Smart grid optimisation could minimise outages.

If machine learning (ML) is done without human oversight and input, it could skew models unfairly and could exclude certain customers. However, there is also potential for the opposite to be true, where, with the correct input models and oversight, ML and AI can be trained to ensure the necessary customer groups are included in the tailored support.

### **Scheme phasing**

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

Prioritisation should be around work with a 'customer-first' focus, particularly around helping to lower energy bills through increased efficiency, greater control over data

sharing, and enhanced consumer protections. This includes the SSES workstream and vulnerable customer use cases, as they provide support where needed, and help to keep bills affordable.

Access for non-priority uses of energy data should follow once the system has the correct physical and digital infrastructure ready.

Consideration should be given to which parties have priority access if a network is under strain.

### **Energy-specific considerations**

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

Unlike personal financial data, energy consumption data is not necessarily tied to a single individual—it typically reflects the usage patterns of all occupants within a property. The scheme must consider how non-primary account holders (e.g., tenants, family members) can engage with, understand, and consent to data-sharing decisions. Consideration should be given to the other occupants who are not the priority bill holder.

As outlined in response to question 2, the energy system is a mix of both centralised and decentralised datasets.

Regular auto-switching as a result of a smart data scheme may lead to unintended, negative consequences for the customer.

Any approach should be aligned with existing data sharing workstreams across the energy sector to ensure interoperability with secure data schemes.

### **Design principles**

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

To ensure the success of an energy smart data scheme, it is essential to establish a clear set of guiding principles that align with consumer protection, market innovation, and regulatory best practices. Energy UK recommends adopting the consumer consent common principles, which provide a strong foundation for secure, efficient, and customer-centric data sharing:

- Simple and Low Friction
- Interoperable
- Agile, Flexible, and Scalable
- Transparent and Informative
- Inclusive by Design
- Secure by Design

Customers should be able to restrict the level of data shared.

Beyond these principles, increasing work on interoperability and increased standardisation of products, services, and tariffs will increase and widen access to the scheme, ensuring its success.

Energy UK notes the existing Data Sharing Infrastructure programme uses a federated consent model, where instead of a single, centralised authority controlling consent, a federated model distributes consent management across different entities while ensuring consistency, interoperability, and compliance with legal standards. This enables scalable, privacy-respecting data sharing across multiple entities while giving users control over their personal information, balancing decentralisation with standardisation to manage consent.

### **Technical considerations**

**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.**

Gaining consent is an incredibly complex process. Communicating the complexities around how suppliers manage consent to customers in a digestible format, whilst covering all of their legal requirements, will likely be too difficult for customers to understand. Making the consent platform simple is difficult to achieve in practice.

Crucially, these considerations must be thought about with end users in mind, particularly for vulnerable customers. Real life focus groups and use case testing will be essential for a successful delivery.

- As highlighted during Energy UK's [consumer consent consultation](#), the following technical concerns should be addressed: Decisions on how consent can be transferred (for example, on Change of Tenancy or Change of Supplier).
- Specific guidance would be needed on how, for example, consent for data from multiple-occupancy properties would be managed, particularly when not all property occupants have consented to data sharing whilst only property-level data is available. In rental properties, it would be necessary to clarify whether the landlord can also gain access to the data.
- How to signal to customers where their data protections may differ when sharing data.
- How consent withdrawal would work and be verifiable (and how quickly any removal of consent is actioned upon). If consent is withdrawn, there are questions around what happens to historic data. If it is kept, this should be clearly communicated to the customer. Obtaining customer consent can be challenging for services that are already operational. For organisations that have previously secured consumer consent, this should be carried over into the platform for the exact purpose for which they have gained it, as regaining consent after a service is fully established can be difficult.
- How data sharing would work with introduction of new technologies

- Where complaints or questions as a result of the platform, as this will may be directed to suppliers rather than any other third parties accessing the data. Energy UK understands that the third parties will be accredited, and this accreditation process will be subject to consultation. This understanding should be clearly communicated to industry, given the challenges customers have faced from unregulated third party intermediary brokers.
- How authentication would work (ensuring that a customer is associated with the identified meter point to prevent fraud). If consent processes are delayed, this could have a knock on impact on how quickly services can be implemented. There would therefore be questions on what amount of minimum level of service which can be carried out without any consent (for example, if there is no consent, will a smart boiler still be able to function?).
- Additionally, does the need for consent to carry out services pressure customer into consenting, when they may not want to share their data?
- In the SSES Tariff Interoperability Working Group, there is work ongoing to decide which authentication platform would be best suited, such as OAuth. Energy UK recommends alignment with the outcomes of this workstream to ensure ease and efficiency of the authentication process.
- There may be vulnerabilities of the APIs linked to authentication and authorisation, and as such should be regularly stress tested to ensure they remain secure.
- Energy UK members note that any changes to switching procedures at an operator/aggregator level may impact the relevance of consumer consent models, given that customers currently need to give consent for a switch request by a TPI or aggregator on behalf of the customer.
- Some smaller organisations use intermediary companies to gain consent. If these secondary services are named in the consent platform, a customer may not recognise the name and as such withdraw consent. It is important that the primary company name, which the customer recognises, is listed instead of the intermediary. If there are multiple third parties accessing data, how would these be differentiated to the customer?
- There are business models in place where organisations arrange the consent on behalf of third parties, raising questions about how this would work in the model.
- Further detailed work is required on the modelling of consent. If shared data is combined with other data that a company holds about a customer, this could increase the sensitivity of any data held and so increase risk to customers.
- Ofgem should consider how to ensure that data sharing is only related to uses a customer understands and has actively opted into. This will avoid any risk of customers perceiving any solution as being one that they did not consent to. It is vital for this work that Ofgem has a clear and executable model of consent management that consumers will trust.
- It is also unclear who the key data actors are, what the process flow for the use of the consent solution is, and how the solution would subsequently interact with the sources of the data for which consent is being sought.

- It is important that the UK ensures data adequacy with the European Union standards continue to apply to ensure continued access to relevant data when needed.

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

See question 20 and question 2.

**Roles and responsibilities**

**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.**

There are currently many different bodies, either recently selected or in the process of being selected, which oversee various aspects of existing data-sharing schemes and practices.

For example:

- Data Sharing Infrastructure: NESO (interim)
- Market facilitator and market half hourly settlements: Elexon
- Smart Secure Energy System: to be determined
- Consumer consent: to be determined

Given at this stage the scheme is at a very early stage, Energy UK does not have a view on which bodies should be responsible for scheme design, although some critical aspects should be considered if the scheme progresses.

As outlined in Energy UK's [Governance of Data Sharing Infrastructure](#) (DSI) consultation, effective routes to recourse and clear lines of escalation should be established to ensure that any issues, concerns, or conflicts are promptly and efficiently addressed, thereby maintaining the integrity and progress of the DSI project. This should include specific points of contact, timelines for responses, and the hierarchy of escalation. The process should be transparent, promoting a collaborative approach to DSI with industry.

The governance model should align with the enduring DSI delivery body, and this will be consulted on later in 2025.

There is a strong need to ensure adequate representation from industry stakeholders in the governance structure, so that the industry can input expertise and diverse viewpoints to develop the best possible outcomes. This could include forming an industry advisory board which can help to review and address concerns.

Greater detail is also needed on how compliance and assurance would be managed. Different data users may be governed under different governance regimes, for example SLC47 and ICO governance.

There is also a need to understand how to integrate industry bodies who are working with data that goes across borders or may be based outside of the UK.

There is a need to consider the powers and processes for Ofgem to intervene if there are areas of concern.

**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.**

As above, Energy UK would raise the question of what powers the governance body would have to intervene where there is non-compliance or disagreements in processes, and what the relationship with Ofgem would be.

Any delivery body should integrate and collaborate with the other industry bodies delivering customer data sharing, clearly communicating what the vision is working towards.

As above, there need to be clear, trusted, accessible customer routes for redress.

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

As above, the governance body should integrate the ability of data governance, data transfers, and data standards outside of the UK.

The body needs to ensure contestability and customer routes to redress.

**Feasibility**

**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.**

Given the difficulties in engaging customers in the smart meter rollout (and similar industry schemes), the proposed smart data scheme needs to ensure it will reach a sufficiently high number of consumers in the short- to mid-term to achieve its aims.

It is worth considering how customers currently engage with digital infrastructure ahead of setting any overly-ambitious targets.

The scheme should not slow down any existing workstreams, particularly SSES, given existing timeframes and targets.

The enduring DSI delivery body will be assigned in 2028. There are questions about what role this body will play for the smart data scheme, and there are concerns it may not be ready for the interaction with a smart data scheme by this point.

Energy UK is mindful of the need to do this in a way that supports competition whilst providing a balanced playing field between suppliers and other providers.

## **Risks**

**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.**

Current data sharing challenges include: complexity (in the process/procedures), participant lack of familiarity with the process; unclear timelines; unanswered data requests, and long response times. As the market matures, demand increases, and customer awareness grows, industry coordination could improve this process.

### **Capacity issues**

Depending on how third parties are defined, this could put strain on, and slow down, data exchanges with greater traffic on networks. This could put critical data-based services under pressure, where they are unable to access critical information due to increased data users. For example, suppliers may not be able to access information on pre-payment top-ups because ATPs are slowing the system down. Consideration should be given to which parties have priority access if a network is under strain. There should be caution around fairness if the capacity of the network for data exchange blocks fee-paying users out of the system, with increased demand driven by non-fee-paying users.

Similarly, the ATP would define how much data they want, but may choose more than they need. This could slow the system down, whilst raising questions about whether the customer has consented to sharing their data knowingly.

As outlined in response to question 2, single time data access, data harvesting, and data use are different activities and will need to be considered in the regulations.

### **Customer protections and vulnerabilities**

While a smart data system could help customers save money, ATPs coming in between the energy supplier and the customer could create problems on routes to redress, particularly as the ATP would not have any responsibilities for vulnerabilities or providing support schemes (e.g. Warm Homes Discount).

The ATP would not have any obligations to support vulnerable customers (e.g., those needing special tariffs, extra care, or assistance). Energy suppliers have responsibilities to help these customers, but if this information does not reach the supplier, they may not receive the level of support they need.

For example, in many auto-switching services, customers might not even know who their supplier is at any given time, making it hard to resolve issues. Energy suppliers buy energy in advance based on expected customer demand. If customers are constantly switching, suppliers will not be able to predict how much energy to buy, leading to higher costs.

There is a need for ATPs to prove financial resilience, particularly if they are responsible for key roles (e.g. auto-switching). As seen during the energy crisis,

many small suppliers failed. If ATPs have key responsibilities for customers and the energy system, financial resilience will ensure they can withstand market shocks and not disrupt essential services to their customers.

### Data centres and physical infrastructure

The rapid growth of data centre investment and development is already contributing to increased electricity demand, forecast to increase significantly. Energy UK is currently undertaking research on the future electricity and wider energy system impacts of data centres, particularly as the Government decides how it will reform electricity markets arrangements. Similarly, timely and affordable grid connection is a key concern for data centres. The development of a smart data scheme should consider the physical infrastructure needed to implement this, including environmental, skills, and energy considerations.

### Cybersecurity

Cybersecurity will remain a key issue as we digitalise the energy system, with the threats difficult to predict. There have been multiple cyber-attacks in recent years (for example, the NHS Synnovis and British Library Rhysida attacks) showing that GB digital infrastructures are vulnerable. Given vulnerabilities are difficult to predict, there needs to be a review of security testing on an ongoing basis to address existing and emerging flaws in the system.

The delivery body should ensure the governance has preventative measures for quantum computing threats and artificial intelligence (AI), which can be difficult to predict. Work is being delivered at SECAS to review these threats. Clear routes to escalation and evaluation of the crisis management process to build resilience in the event of any data breach will also be important to effectiveness.

A smart data scheme, as it will be dealing with customer data, needs to have thorough cyber security credentials.

### Costs and funding

#### **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?**

This scheme is likely to be high cost.

Because of the many parties accessing energy customers' data, costs should be distributed fairly across all parties accessing data, and the burden should not fall primarily on energy suppliers. A supplier-funded model typically means that the costs would be recovered through customer bills, increasing the costs for all customers (including vulnerable customers), while the benefits are likely to be gained mainly by those able to invest in new products and services.

The scheme should, therefore, be fairly funded on a 'user pays' basis, with parties that benefit from accessing data via the scheme the ones that ultimately pay for it.

With many parties accessing the scheme, this could drive up system usage. Critical national infrastructure and consumer support should be prioritised in accessing data.

When scoring cost, it is important to understand and communicate the approach taken and the anticipated impact for industry and customers, as well as the administrative burden of any solution.

Without high uptake, there is a risk that the implementation costs could outweigh the net system benefit that this programme could deliver. Customer uptake will ultimately define the success of any scheme. The complexity of implementation and synergy with other customer tasks will also impact cost efficiency and delivered benefits (for example, self-service, self-activation of ESAs, participation in local markets, and customer-led switching of operators).

Customers should not feel the cost burden on their energy bills – particularly as more marginalised customers will not access the scheme but could see extra costs.

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

As in response to question 27, Energy UK would note that the funding solution should ensure fairness across the energy system. Energy UK urges against a default fee system where the burden is placed solely on suppliers, given the solution will be used by and benefits a much wider range of actors in the energy system. A fair approach to cost-recovery should also avoid possible problems in other supplier-funded initiatives where some participants benefit from but do not contribute to the central system.

**Additional comments**

**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?**

N.A.