

Energy UK response to Ofgem's Governance of Data Sharing Infrastructure

20/09/2024

https://www.ofgem.gov.uk/sites/default/files/2024-07/Governance_of_a_Data_Sharing_Infrastructure_Consultation.pdf

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.

Our members deliver nearly 80% of the UK's power generation and over 95% of the energy supply for 28 million UK homes as well as 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 our Young Energy Professionals Forum, which has over 2,000 members representing over 350 organisations, we are a founding member of TIDE, an industry-wide taskforce to tackle Inclusion and Diversity across energy.

In the development of an effective Data Sharing Infrastructure, it is important that lessons are learned from previous efforts under Open Networks and ESO, Ofgem, and Government workstreams to date. In particular, it is critical that the wider industry - including Energy UK and its members - are given the ability to input into design and implementation, and to hold the responsible delivery body to account for timely and effective delivery.

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

Section 2 Questions

Q1. Do you see potential uses for the DSI within your day-to-day operation in the energy sector?

A Data Sharing Infrastructure (DSI) in the energy sector will be essential as we move towards a smarter energy system, a core part of the cost-effective delivery of reach the UK's Net Zero target.

Use cases are as follows:

- A simplified and trusted framework, particularly as it focuses and aligns industry vision on cybersecurity.
- Support, management, and direction for other workstreams, such as Delivering a Smart and Secure Energy System (SSES), digital infrastructure, consumer consent, and cybersecurity.
- To aid in network planning and system design.
- Providing accountability on data integrity and data standards.
- Access to standardised data points.
- DSI could also make it simpler for generators, aggregators, energy storage providers, and DSR providers to create new, innovative solutions for both consumers and the system.
- DSI can 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.

Further, while Energy UK appreciates that this question is about the potential uses DSI can facilitate, it is also worth highlighting the barriers to the effectiveness of the DSI if barriers to gathering granular, standardised data persist.

Namely, regarding some of the potential uses for the DSI, Energy UK would note two concerns.

Concerning supporting strategic planning, the main issue is around timelines. The SSEP and CSNP are due to be delivered 2025-2026. The data from the TOs will not present an issue in itself but the timelines for the pilot of the DSI will have only just begun by this time. The RESPs will encounter a significant lack of granular data at the DNO level and the myriad of issues there appear to be in collecting and standardising this information.

Concerning supporting connections reform, work to deliver increased alignment of transmission and distribution interaction data is welcome, but this change continues to face issues. Namely, enhancing visibility of capacity availability at the distribution level and understanding its interaction with transmission capacity to enable DNOs to secure and allocate capacity to embedded generation more easily. The work here is facing a number of roadblocks, namely difficulty in understanding the interaction of forecasting future capacity while the other connection reform processes remain incomplete. Forecasting capacity will remain difficult until further clarity on the specifics of the 'Gate 2' criteria is established, and until the data deficit is addressed, there will remain limited clarity on the state of the distribution network.

As an example, one issue regarding efforts to improve access to data at the distribution level include the simple lack of on-network data. Examples of this include the difference between a substations 'announced spare capacity' and the actual amount of spare capacity available to it. Frequently the actual spare capacity available on them requires inspection by an engineer. This means an unknown amount of unused capacity remains unused at the distribution level, and the accuracy of strategic investment decisions will be based on

incomplete data. Attempts to heavily rely on smart meter data rather than rolling out on-network monitoring capabilities will only continue this information disparity across network areas and fail to give an accurate reflection of real-time energy flows across distribution networks.

There are general security and commercial concerns over the release of real time data. Whilst this can partially be overcome by what data is aggregated and what isn't, there should also be arrangements to resolve commercial issues on when data is shared for a fee, as this cost is not passed back to the original company providing the data or the customer who owns the data in the first place. The arrangement should ultimately bring costs down for the customer, and Energy UK would welcome greater clarity on how the payments for the service would work.

The DSI and wider strategic plans are only as useful as the data that is gathered in the energy system.

Q2. Do you have any comments on the funding mentioned within this section?

Given that post-2028 costings are not provided at this stage, it's difficult to comment. There are potentially concerns over scope creep and the likely associated higher costs as the abilities and complexities of the governance body increase. Nonetheless, it is good to see Ofgem have a good understanding of the various considerations of the differing potential funding mechanisms.

It appears appropriate to socialise the costs of common system data that parties have an interest in and require. Passing these costs on a usage basis to parties that use the data would likely not result in savings for customers as costs would still be passed onto final consumers. The one difference would be that it would provide an additional cost and potential barrier to entry for smaller energy companies.

Nonetheless, for certain kinds of data that are not needed by all parties and not at the same level of granularity, it may make economic sense to have costs be levied directly on users on a usage basis.

There is also an issue of the impact on the capacity of the data sharing network. Increased users who have access to the infrastructure could put a strain on the system, making data exchange slower. 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.

Q3. Do you have any comments on the timeline shown?

The timelines for developing an MVP seem quite long. Longer timelines and the changing pace of technologies can cause the scope of the project to change.

There is a clear need for alignment and integration of existing data sharing programmes to feed how the governance mechanism is able to expand beyond the pilot programme. This is crucial given the different requirements and nuances to protect customer vulnerabilities and maintain data integrity of the system. For example, for the DSI to be effective in enabling the areas it has outlined (SSEP/CSNO, connections reform, Smart and Secure Energy System, Flexibility Digital Infrastructure, and Automatic Asset Registration), the timeline would need to move with much greater speed. This will likely require greater resourcing in this area in terms of staff. Amongst this, with the amount of ongoing, cross-cutting digitalisation work, a cohesive vision of the aims and coordination of timelines and outputs would be appreciated.

Energy UK recognises technical approaches like advanced interoperability and standardisation is highly desirable but often technically challenging to deliver. As has been apparent with tariff interoperability in Smart and Secure Energy System (SSES), creating a standardised format of data takes time, industry input, and cost to get it right. It is recommended that there are a suitable numbers of working groups, industry engagement events, and information sessions to align views and refine some of the challenges in delivering at pace.

Clear communication of timelines and direction of travel with the industry is essential to prevent increased costs, which ultimately lead to higher customer prices.

Given the timelines and the changes NGESO/NESO is going through, there may need to be adjustments to the timeframes to anticipate the current growth and resource constraints.

Issues that have come to light with the Open Networks Project should not be repeated, and it is critical that network operators are given the right data in the right fashion, but also that the wider industry outside of network and system operation bodies are included in the development and implementation of the approach. The industry and the Regulator will need a way to hold the delivery body and other relevant bodies to account for delivery of data and frameworks in a timely fashion.

Work to establish the DSI will need to be coordinated with efforts to improve the provision of on-network data of the system. Continued smart meter rollout will be part of improving data visibility but detection systems on key network assets like substations will be a critical part of delivering true visibility of the state of the system. The Cabinet Office's work on the National Underground Asset Register (NUAR) and wider workstreams on the digital spine and in the National Infrastructure Commission's review of electricity distribution networks will be important parts of an effective approach.

Section 3 Questions

Q4. Do you agree with our short-term governance structure model where the Interim DSI Coordinator is responsible for leading the short-term governance (2024 – 2028) of the DSI?

Energy UK supports Ofgem's focus on a decentralised technology solution to facilitate the work on data sharing infrastructure in a cost effective way, and as a way to facilitate market entry. There is a need to consider how Ofgem can step in if there are areas of concern.

There is a strong need to ensure adequate representation from industry stakeholders in the governance structure, so that industry is able to input their 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.

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 data sharing infrastructure with industry.

Following engagement with National Grid ESO, it is encouraging to hear the genuine desire to ensure the DSI and key features like the knowledge base are open systems with routes to recourse that will be built iteratively with close involvement from industry. Our members look forward to engaging on how this will be achieved. However, it is somewhat concerning to see that the proposed technical advisory node made up of industry experts is not as integrated with the key organisation structure as it could be.

Greater detail is also needed on how compliance and assurance would be managed (different data users may be governed under different governance regimes - SLC47 and ICO governance). There is also a point on how to integrate industry bodies who are working with data that goes across borders or may be based outside of the UK.

Q5. If not, state your reasons and propose an alternative governance model or improvements to our proposed solution.

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Q6. Are there any additional governance roles that are not covered by the proposed governance model? If so, what are these?

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

There are several ongoing digital consultations this year, including on consumer consents, a Smart and Secure Energy System (SSES), and Regional Energy System Plans (RESP). These timeframes should be considered as Ofgem and govt. put into place governance mechanisms. The DSI should incorporate these workstreams into a clearly communicated vision of what the energy system is working towards.

Q7. Do you agree with the responsibilities of the interim DSI Coordinator? Are there any additional responsibilities that it should undertake?

A clear role to align key policy workstreams should be further developed. Namely, ensuring that the DSI can be used facilitate the Strategic Spatial Energy Plan (SSEP), Centralised Strategic Network Plan (CSNP), Review of Electricity Markets (REMA), the future of network connections reform and other key, system level workstreams.

Q8. Do the proposed deliverables reflect the outputs that the Interim DSI Coordinator should focus on in the initial DSI stages? Do you suggest any additional deliverables?

Energy UK strongly supports the annual generation of reports on existing and proposed use cases of the DSI [3.12].

Concerning the use cases for the DSI, there should be impact assessments of the value add of the usage of the DSI within the workstreams to keep the governance mechanism cost effective.

3.12: We propose that this technology assessment is published on 1 April 2028, to coincide with the end of the Interim DSI Coordinator period of activity.

Whilst keeping up with technology advances remains difficult, publishing the technology assessment so close to the date of the end of the interim period will be too late, as this causes issues when deciding the permanent delivery body. Ofgem should make sure there are bids, in sufficient timeframes, to decide the delivery body and to avoid a conflict of interest with NESO as the enduring governance mechanism beyond 2028.

Given the complexity of data and assets in the smart energy environment, it will be difficult for any industry body to fully address all security, resilience, or technical requirements at the pace of technological advancements in the industry. This speaks to the innovation in the market, as well as the challenges that the data sharing infrastructure will face. Energy UK

would stress the importance of the deliverables of the DSI being outcomes-led and aligned with international standards, as a way to be flexible given the pace of change in the industry.

Section 4 Questions

Q9. Do you agree with us that the System Operator is the best option as the Interim DSI Coordinator? If no, explain your reasons and justify your proposed option.

At this stage, Energy UK does not have a strong position as to which is the best outcome for the delivery body. Initial reflections suggest that NGESO/NESO would be the best fit out of the options provided. If it is led by NESO, there is a need for industry to be able to input with clear routes to escalation.

Whichever body is appointed, Energy UK would highlight that the chosen body should be the body is best positioned as the facilitator of customer data sharing. It may be that this is NESO, but Energy UK would highlight that there are other industry bodies who have experience working and sharing customer data, and raise the question of whether an effective assessment can be made on if the NESO would be the best delivery of this data infrastructure based on current and potential future capabilities, resource, and expertise.

Energy UK would also raise the questions of how the industry can challenge the decisions and strategy of the interim DSI Coordinator, and how industry has the ability to input into their decisions. The DSI Coordinator should ensure the objectives and standardisation process is in the best interests of industry and customers.

On interoperability and common standards, many of our members operate in Europe and in wider international markets, and being part of the UK market is dependent on the ability to easily align their products and services with clear, internationally recognised frameworks. As such a continual consideration of international standards should be enshrined in the approach of the DSI Coordinator.

Q10. What assessment criteria do you foresee being required when transitioning from short-term governance to an enduring governance model?

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 (the NHS Synnovis cyber-attack, British Library Rhysida attack, to name a few) showing that digital infrastructures across the board are vulnerable. Given vulnerabilities are difficult to predict, there needs to be a review of security testing on an ongoing basis to avoid the emergence of additional 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. Energy UK would point to the work being done at SECAS to review these threats. There also needs to be clear routes to escalation and evaluation of the crisis management process to build resilience in the event of any data breach.

The annual report [as outlined in 3.12] should also assess the mechanisms for stakeholder involvement, including routes for redress and how feedback is incorporated into future governance iterations. Assessment should also account for the range of bodies that may be able to meet some of the key roles based on capability and value for money. Energy UK is encouraged to hear that the DSI feasibility study expects multiple parties to be involved in the governance of future nodes in the enduring governance architecture.

There should be development of a detailed roadmap for transitioning from short-term to enduring governance, including assessment of the suitability of the governance for facilitating the UK's long-term strategic objectives. This should evaluate the availability and

allocation of resources (financial, human, technological) to support long-term governance, and consider how this can be provided at scale.

As above, Energy UK would stress the assessment criteria should ensure alignment with internationally recognised standards and processes to prevent barriers to market entry.

Q11. What suggestions or feedback do you have for refining these governance assessment criteria to better meet the requirements and challenges of digitalisation in the energy sector?

It may be useful to have the option to integrate/extend the role of the interim body with the post-2028 delivery body, given the knowledge and work they will cultivate until that time. This will avoid rebuilding a governance structure in four years' time.

There are also questions as how the body would interact with DESNZ and other government departments, and where government and policy-makers would fit into the governance structure.

There are a lot of data workstreams ongoing at present, with a perception that these are being progressed in silos. Energy UK notes that Ofgem has confirmed they are working to set out a Data Strategy later this year to address that lack of visible coordination in digitalisation. The DSI should be clearly integrated into the data vision.