

By e-mail to: digitalisation@ofgem.gov.uk

Ofgem Consultation: Governance of the Data Sharing Infrastructure

Ofgem
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20th September 2024

Dear Jeff Finch,

Ofgem Consultation: Governance of the Data Sharing Infrastructure– Capgemini Invent response

Capgemini Invent welcomes the opportunity to share our views on Ofgem's consultation regarding the 'Governance of the Data Sharing Infrastructure'.

Capgemini Invent is the consulting, innovation, and digital business of Capgemini. Capgemini is Europe's largest supplier of systems and technology services to the Energy and Utilities Sector. HFS Research have placed Capgemini second globally in their list of business and technology service providers to utilities. Every year we publish the World Energy Markets Observatory (WEMO)¹, the 26th Edition of this will be published in October this year. The report consists of 400 pages of detailed analysis and insights on world energy trends, with a focus on security of affordable energy within the global context of a series of successive crises that impact supply, pricing, and consumer behaviour.

We also provide wider services that cover net zero consumer strategy, development of new market services, smart metering implementation, consolidation, harmonisation and digitalisation of retail market codes and wholesale markets. Furthermore, in 2022 we established the Energy Markets 2030+² working group, which involved collaborating with senior cross-industry representatives over a 10-month period to define the future energy system. This has produced a compelling vision for the future that is based on a broad consensus of how the energy system should work.

In responding to the questions outlined in the consultation, we have provided key observations and recommendations as follows:

- We support the introduction of Data Sharing Infrastructure (DSI) as an integral component and a no regret investment, which has wide applications across the current and future energy systems.
- Whilst we are supportive of progressing DSI and other digital services that will connect to the digital spine currently being consulted on (e.g. Flexible Market Asset Registration and Consumer Consent Portal), we have concerns that the approach lacks a holistic, centrally managed plan. Adopting a right to left implementation approach could accelerate deployment, and simplify governance, funding model and technology choice decisions.
- The suggested Interim Coordinator role choice of NESO is a sensible one, based on capabilities and market positioning. However, If the volume and frequency of new responsibilities being assigned to NESO is to continue, additional funding to address resource requirements and external expert support may be necessary, particularly during this critical transition period.

We have outlined these considerations in more detail in 'Appendix 1'. I hope you find these insights and suggestions helpful and if you would like to discuss any areas of our response, please do not hesitate to contact Michael Taylor³, Jack Taylor⁴ and/or Ranbir Singh⁵.

Yours sincerely,

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¹ [Capgemini \(2023\), World Energy Markets Observatory Report 2023](#)

² <https://www.capgemini.com/gb-en/insights/expert-perspectives/defining-a-unified-vision-of-the-uk-energy-market-in-2030-part-1/>

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Appendix 1 – Executive Summary

Capgemini Invent are in support of the energy system digital spine vision and view the introduction of a simple, robust Data Sharing Infrastructure (DSI) as a core component. The inability to effectively transfer data between industry parties is a well understood issue, that causes friction to existing processes, has the potential to introduce complications during the energy transition, and may limit the effectiveness of future energy system that will contain vastly more data and participants.

We are encouraged by the Department of Energy Security and Net Zero's (DESNZ) response to the energy system 'digital spine' feasibility study and its acknowledgment that the Data Sharing Infrastructure will act as the foundation. However, we have concerns that the approach taken to progressing services that will connect to the digital spine individually, without a clear vision of the desired end-state, will result in downstream complications.

Digital Spine - Adopting right to left implementation approach

The Digital Spine is a widely discussed and well understood concept that has been around for the best part of half a decade. There is an informal industry consensus on the services that will connect to the digital spine, which includes DSI, consumer consenting portal, market entry portal, a flexibility markets platform, asset registry service and an energy scheme service.

We acknowledge that Ofgem are driving the progression of three of these digital services (the DSI; Consumer Consenting Portal and the Flexibility Asset Registration Service) through recently consultations. Yet we are concerned that an overarching shared vision and defined central use-case for the future energy sectors digital service architecture is missing. Furthermore, there is no formal agreement on how, or when, they will be integrated into the digital spine. Given that the proposed implementation timescales for some of these services could be more than 5 years, it suggests that an operable digital spine may not be available until the mid-2030s.

Whilst adopting the iterative implementation approach proposed within these consultations simplifies early-life governance by utilising existing funding models and delivery bodies to implement foundational services. We believe it introduces increased risk of downstream interoperability challenges and missed opportunity cost. Furthermore, there needs to be a clear understanding of how the transition to a future digital service ecosystem will impact current systems. The existing digital energy landscape is highly complex and may require a detailed mapping exercise prior to identify required transitional requirements and migration plans.

This raises a further question, 'what is the digital spine is intended to be'? There are two likely options, either it is a 'physical' digital product, or a set of data sharing standards. The option progressed will have consequences on the required next steps and priority workstreams. For example, data sharing standards will likely require regulatory and market design changes, whilst a 'physical' system will require similar data sharing standard changes and a design, build and implementation programme.

Introducing a taskforce to provide clarity of vision on the desired end-state and accelerate deployment is a low risk, no regret decision that should be progressed as soon as possible. The change programme should seek to define:

- Taskforce governance and leadership requirements;
- Digital spine architect;
- Service design for connecting integrating systems/digital spine onboarding rules;
- Technology choices;
- Digital spine and connecting services governance model;
- Roles and responsibilities;
- Funding mechanisms; and
- Implementation plan/roadmap.

Whilst adopting a right to left implementation will likely require additional up-front effort, we believe that there will be significant benefits realised through reduced complexity in decision making/policy definition, earlier deployment and optimised service design. Currently, the route from DSI to digital spine is unclear.

At a minimum, we strongly recommend that steps are made to progress a digital spine design with clear onboarding rules. This would ensure that services are built to leverage the digital spine, rather than the digital spine being designed for several existing services that may preclude it being used for others.

Data Sharing Infrastructure - Use Cases

Improving sharing of asset data to support system operator strategic planning and connections reform is a strong DSI use-case. However, there is a concern that developing a system that is intended to have cross-industry future applications for a specific system operator use-case may result in downstream design complications when

implementing additional DSI use-cases. For example, it is unlikely that a DSI design for transmission and distribution exchanges will have the same requirements as exchanges within a competitive market, such as retail. As such, we believe that having clear view of future use-cases will be a key part of ensure technology and system architecture choices are optimal.

To ensure there is a clear view of future DSI system requirements and use-cases, we recommend that the following questions are answered, prior to progressing the DSI build:

- Which roles will need to connect to and use the DSI service?
- What are the priority data sharing use-cases?
- What data is expected to be shared in each use-case and what are the data protection requirements (e.g. is consumer consent required)?
- What are the expected data volumes and frequency of use-cases?

Establishing a clear set of cross industry data sharing requirements prior to system build will allow for more effective system design, governance structure decisions, assigning appropriate DSO system coordinator roles and defining an effective funding mechanism.

DSI Coordinator

Appointing the Electricity System Operator (ESO)/National Energy System Operator (NESO) as the interim DSI coordinator is the logical choice, given the proposed approach. NESO has the required capabilities, has commenced the pilot build and can continue to utilise on the Strategic Innovation Fund (SIF) and Network Innovation Allowance (NIA) to develop the DSI. However, we believe there is a risk emerging related to the practice of assigning new market roles and change programmes to NESO as the default option.

For the avoidance of doubt, we strongly agree that NESO's unique whole energy system positioning makes it perfectly placed to deliver a variety of cross sector initiatives and fulfil numerous future system roles. If the volume and frequency of new responsibilities being assigned to NESO is to continue, additional funding to address resource requirements and external expert support may be necessary, particularly during this critical transition period.

In our opinion, acting quickly to introduce a taskforce to define the digital spine vision and central use case for connecting services may negate the need for an interim DSI coordinator, by simplifying decisions on funding, governance, policy, ownership and technology choices across all proposed micro-services. Furthermore, assigning an enduring coordinator earlier avoid the potential requirement of a service transfer, which may be complex and costly. An enduring DSI coordinator will also have long-term certainty in strategic planning and for service development roadmaps.

Conclusion

We are in strong agreement with the need to introduce the proposed DSI functionality yet have concerns that the overall approach to implementing DSI, wider digital spine infrastructure and future energy system services is disjointed and lacking integrated planning. We recommend that a taskforce, which aligns governance, funding and technology choices across all digital spine micro-services, is progressed as a priority.

Appendix 2 – Response to Consultation: Governance of the Data Sharing Infrastructure

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

In addition to the asset data sharing use-cases between network companies and the system operator discussed within the consultation document, we believe the other primary DSI use-cases include:

- Consumer vulnerability data;
- Data exchange between central parties (e.g. code bodies/the regulator) to support industry change, policy development and research; and
- Data quality issue resolution between industry parties.

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

As covered within the executive summary, we recognise that the current funding model for the proposed DSI minimum viability product is appropriate. However, our preference is to widen the scope of the DSI, such that there is a clear implementation roadmap outlining when additional use-cases will be added. As such, using the SIF and NIA may no longer be appropriate if the DSI is used by parties that are not subject to the RIIO price control framework.

Decisions on the future governance model of the DSI and other digital spine services will inform which funding models would be more appropriate to take forward. Utilising existing models, such as energy code service charges, or licence fees, would likely reduce complexity, yet may be more difficult to monitor long-term cost effectiveness where digital spine services are spread across various industry bodies. We recommend that the future governance structure is assessed prior to determining which funding model would be most appropriate.

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

As outlined in the executive summary, our preference is for accelerating the timeline by adopting a right to left implementation approach, in which the future energy system data sharing requirements are defined up-front and paired with an implementation roadmap. We view DSI as a no regret investment that will improve multiple existing and future industry processes. We are concerned that the current implementation plan lacks ambition and will reduce the 'pay back' window through providing limited functionality until the mid-2030s.

4. 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?

Whilst we recognise the benefits of adopting a short-term governance model, we believe that determining the long-term governance framework for the DSI and wider digital spine will lead to increased benefits realisation. Furthermore, we have highlighted (see executive summary) that continuing to treat NESO as the party of default for future energy system programmes may increase the risk of ineffective delivery through overloading NESO during a critical transition period.

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

In our opinion, it will not be possible to determine the optimum governance model until the future energy system digital service vision and central use-case is defined. Once defined, it will be significantly simpler to assess governance and funding models, technology options, system design options, and implementation approaches and determine the most suitable way forward.

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

As outlined in the executive summary, we believe that it will be essential to assign a party to have holistic oversight of the digital spine and connecting services, including the DSI. This will be critical in ensuring an optimum design, interoperability of services and cost effectiveness.

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

As covered above, we do not believe that adopting an interim DSI coordinator is the best route forward. In particular, there is a high likelihood that the interim coordinator will progress an architectural design and technology choices that meets near-term objectives and is optimised for the MVP use-cases, as opposed to pursuing a cross-energy sector, holistic approach that encompasses future DSI users and use-cases.

8. 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?

As above, see question 7.

9. 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.

As above, we do not agree with progressing an Interim DSI Coordinator. However, we acknowledge that the System Operator has the capabilities necessary to fulfil the role yet have concerns that NESO is being overloaded with additional future system roles and delivery programmes.

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

As above, see executive summary.

11. 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?

As above, see executive summary.