ESO

People & Process Advisory Group

Meeting 6 Minutes

Date:	31/01/2024	**Location:**	Virtual
Start:	13:00	**End:**	14:30

Participants

Attendee	Organisation
James Edwards-Tombs (Interim Chair)	ESO
Claire Addison	Flexitricity
Chris Martin	Pinsent Masons
Prof Chris Budd	University of Bath
Teodora Kaneva	techUK
Ankit Patel	Arup
Jonathan Barcroft	ESO
Divya Mahalingam (Facilitator)	ESO

Agenda

1.	**Apologies for absence**
2.	**Discussion: Minimum Viable Product**
3.	**Discussion: Outline requirements from the DSI**
4.	**Discussion: User Journey in Trust Framework**
5.	**Discussion: Determining the Operating Environment**
6.	**Next meeting**
7.	**AOB**

Discussion and details

1. Apologies for absence

- Ali Nicholl - IOTICS
- Barbara Bormann - Drax

- Gea Mikic - Icebreaker One
- Kevin Reeves - KJR Digital

2. Discussion: Minimum Viable Product (MVP)

Reflection Point

- ***Does this representation of the component parts of the MVP cover the scope you would expect to see?***

Discussion

- The ESO summarised the ongoing Common Socio-Technical Framework project work with the National Digital Twin Programme (NDTP) to develop the proposed architectures for a Data Sharing Infrastructure (DSI).
- It was discussed that ESO is utilising the work to date from the Common Framework workstream to accelerate development of the data sharing infrastructure by starting with the operational planning use case to develop a pilot phase. This pilot would evolve into the MVP use case of strategic planning.
- The pilot development will include the VirtualES uses cases and the additional use cases identified in Future System Network Regulation (FSNR) and Electricity Networks Commissioner Report (ENC).
- It was confirmed that the Virtual Energy System use cases projects including Advanced Dispatch Optimiser, Crowdflex and Powering Wales Renewably are evaluating the data that needs to be shared and are developing the simulation, visualisation and optimisation tools that will help form the Virtual Energy System.
- ESO reassured the group that a lot of work has gone into looking at the different use cases for a data sharing infrastructure across energy, such as:
  - Regulatory burden reduction
  - Outage planning and
  - Central strategic network planning (CSNP)
- The group were supportive of the outage planning and it's uses, particularly around the unpredictable data at lower voltage levels.
- It was advised to involve different types of participants for the pilot phase – Operational Planning, such as: DNO and a legally separated DSO.
- The group agreed that with some flexibility, data can be modified relatively easily to cover that additional requirement in the legal agreement.
- It was agreed that the MVP timeline is realistic, the technical piece of work of sharing the data and the legal compliance will take time to come together.

  It was concluded that a focus on systemic cohesion and interoperability reduces the burden of sharing by creating common rules and frameworks that addresses good data governance. It ensures data is used appropriately for the purposes intended, addressing questions of security, liability and redress.

3. Discussion: Outline requirements from the DSI

- A data sharing infrastructure requires a trust framework, a data standardisation mechanism and a data sharing mechanism. Evidence and experience from recent data sharing initiatives (for example CReDo) show that the appropriate data sharing architecture for such infrastructure is a distributed architecture which allows prioritisation of security and scalability.

Reflection Point

- ***Are there any activities or interfaces that require additional or specific governance?***

Discussion

- An element of the work to develop a data sharing framework, as originally recommended by the National Infrastructure Commission in 'Data for the Public Good', is being taken forward at the national level by the NDTP.
- It was suggested that as sectors develop their data sharing infrastructure, it is essential to ensure that this data sharing infrastructure is connected across sectors, in the same way that power lines need to connect to physical water, communications and transport networks.
- It was advised to have clear DSI requirements:
  - Provide clarity about the legal powers which apply to your data assets.
  - Build consistency in the information about your data sharing legal powers you make available, and how you communicate it.

6. Discussion: User Journey in Trust Framework

- The trust framework is a set of rules that different organisations agree to follow to deliver one or more of their services. This includes legislation, standards, guidance and the rules in this document. By following these rules, all services and organisations using the trust framework can describe digital identities and attributes they've created in a consistent way. This should make it easier for organisations and users to complete interactions and transactions or share information with other trust framework participants.

Reflection Points

- ***Do you think the VirtualES Trust Framework is something that should leverage a sector wide implementation like Open Banking?***
- ***Are you aware of other initiatives that are exploring the use and implementation of a component like a trust framework?***

Discussion

- The trust framework element plays the role of setting rules and verifying they are being followed and comes into play while submitting the data to share through the Virtual Energy System. The trust framework has been assessed through workshops with Open Energy.
- Open Energy has been funded by Innovate UK Modernising Energy Data Access (MEDA) and has developed a trust framework model for the energy industry based on the trust framework model operational in the banking sector, Open Banking.
- Each sector has its own specific needs; sector-specific Trust Frameworks will be needed to agree upon and operationalise sector-specific rules depending on commercial, regulatory, and technical needs. It is therefore important to establish clear definition of trust framework, specifically for the energy sector.
- It was discussed that the trust framework forms a thin layer enabling access in the data sharing infrastructure but needs to be joined up with a data standardisation mechanism and a data sharing mechanism. Hence, it is important to explain to stakeholders about the governance arrangements, data standards and its legal provisions.
- It was explained that certification is essential if the framework is to be able to secure trust and the best way of delivering this is through a standard approach which organisations will recognise and be confident in using.
- Technical considerations help to understand broad technical considerations and decide on the technical delivery mode which would be most fit-for-purpose for their use case, requirements and data sharing arrangements.
- It is important to think through key areas for regulatory compliance for data sharing – such as legal, sectoral or regulatory obligations.
- The need to identify the appropriate legal gateway and to follow processes and approaches may introduce legitimate friction in the system which acts as a safeguard against misuse of data.

7. Discussion: Determining the operating environment

Reflection Points

- ***What other characteristics do you propose to include in the assessment of various steady-state options for the operating environment?***
- ***Do you know of any further example where these types of operating models are used, and if they were successful, or unsuccessful?***
- ***Are there any constraints or practicalities of deliverability that we should be aware of in assessing these options? e.g., timescales, regulatory needs, stakeholder preferences.***

Discussion

- To address the strategic questions and to investigate how data sharing could enable and improve future regulation, the ESO carried out a series of interviews and workshops with NDTP, Ofgem and DESNZ.
- It was observed that a data sharing infrastructure has three key functions:
  - Trust: Trust framework
  - Prepare: Data standardisation mechanism
  - Share: Data sharing mechanism
- CReDo and NUAR project operating models and characteristics were discussed.
- CReDo, the Climate Resilience Demonstrator, has tested out the development of a distributed architecture so that data can be accessed at source from different organisations, through a data licence, without storing the data in a central database.
- NUAR, the National Underground Asset Register set up by the Geospatial Commission, has developed a central database to access data via data licences.
- It was mentioned that as data sharing grows and new technologies drive a more interconnected infrastructure ecosystem, the range of potential threats is expanding. Security breaches, data losses and cyber-attacks are some examples.
- Considering the security issues that arise within the sector, promoting greater awareness and understanding of these and working collaboratively with external organisations, such as the National Cyber Security Centre (NCSC) and the Cyber Security Information Sharing Partnership (CiSP) towards solutions, such as developing secure gateways to share data.
- Technical barriers, such as the data not being in the right format (for example due to a lack of common standards), being stored only in legacy systems that are not built for sharing or the data not being digitised at all. Technical barriers to data sharing may manifest in the form of inadequate data availability, quality and interoperability.
- Commercial barriers refer to data not being shared because the costs of sharing are perceived to be greater than the expected benefits.
- The direct costs of sharing data could involve negotiating licensing agreements, investing in or upgrading IT infrastructure and data sharing platforms, and the ongoing management of the data sharing process.
- Any regulatory-led action, such as adjustments to regulatory frameworks, guidance and specific targets for data sharing, would work in parallel with industry-led data sharing groups and the development of a broader infrastructure data framework, to maximise the likelihood of a pervasive shift towards greater data sharing across stakeholders.
- While recognising the potential benefits of data sharing, any intervention would need to carefully consider the costs involved and how these may be dealt with as part of regulatory frameworks and incentive mechanisms.
- A balance needs to be achieved between tackling commercial and technical barriers to realise the benefits from data sharing while simultaneously ensuring that security and privacy risks are appropriately addressed.
- It was agreed that in the case of commercial barriers, it may be more difficult to address through an industry-led approach alone; therefore, an active role for Government and regulators is crucial.

7.	**Next meeting** • The next meeting will be held on Wednesday the 27th of March from 13:00 to 15:00.
8.	**AOB** • The Chair thanked the group for their attendance and contribution.