Meeting 1 Minutes

Date: 13/03/2023  
Location: Virtual

Start: 14:00  
End: 16:00

Participants

<table>
<thead>
<tr>
<th>Attendee</th>
<th>Organisation</th>
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<tbody>
<tr>
<td>Carolina Tortora (Interim Chair)</td>
<td>ESO - Electricity System Operators</td>
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<tr>
<td>Ali Nicholl (stand for Gemma Beard)</td>
<td>IOTICS</td>
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<td>Claire Addison</td>
<td>Flexitricity</td>
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<td>Gea Mikic</td>
<td>Icebreaker One</td>
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<td>Kevin Reeves</td>
<td>Construction Leadership Council</td>
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<td>Prof Chris Budd</td>
<td>University of Bath</td>
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<td>Kenny Shearer</td>
<td>Scottish Power Transmission PLC</td>
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<td>Simon Evans</td>
<td>Arup</td>
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<td>Jonathan Barcroft</td>
<td>ESO</td>
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<td>James Edwards-Tombs</td>
<td>ESO</td>
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<td>Divya Mahalingam (Facilitator)</td>
<td>ESO</td>
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Apologies

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<th>Attendee</th>
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<tr>
<td>Teodora Kaneva</td>
<td>TechUK</td>
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Agenda

1. Apologies for absence
2. Introduction
3. Conflict of interest
4. Discussion of priority factor: Raising awareness and fostering culture
5. Discussion of priority factor: Creating a governance framework
6. Discussion of priority factor: Engaging stakeholders
7. Next meeting
8. AOB

Discussion and details

1. Apologies for absence
   • Teodora Kaneva - TechUK

2. Introduction
   • The Chair welcomed everyone to the meeting and led the introductions by the attendees.

3. Conflict of interest
   • The Chair explained the conflicts of interest review, none were declared by the attendees.

4. Discussion of priority factor: Raising awareness and fostering culture
   • Building a clear and engaging vision of the VirtualES initiative is a key element of fostering the right culture for change and aligning the actions of a diverse group of stakeholders towards achieving a common goal.

**Reflection Points**

- **How would you describe the vision of the VirtualES?**
- **What would you consider to be the core principles and values of the VirtualES?**

**Discussion**

- It is acknowledged that the VirtualES is a relatively new industry initiative, and so the communications to date have provided the high-level vision, but the specific aspects of the VirtualES are yet to be fully detailed and defined. The group agreed that through continuing the planned input and collaboration within the sector this will become clearer.
- It was mentioned that someone needs to lead and drive this vision, ESO is in a good place to do that. ESO is core to the energy market, and it will make sense for the organisation to step forward and take a lead too. It must be an industry and collaborative venture thing where the benefits to everybody are clear.
- It was discussed that there's huge benefits, not just financial, but environmental and social as well that could come out of the VirtualES, but there is a need for cultural engagement, fostering the right environment and talking about the value that can be generated from this vision.
- It was suggested that a way to enable some of the industry outcomes, introducing flexibility into the energy system could be an enabling vehicle. And organisations must shift their thinking beyond achieving their own organisational objectives to achieving greater system flexibility as more renewables come online.
It was concluded that a guiding principle for the VirtualES is the fundamental belief that a common framework is required through collaboration of all actors in the sector, enabling whole systems decision making, which in turn, enables a common space for actors to compete in the marketplace through their value propositions.

**Reflection Point**

- **Do we need a framework to help actors evaluate their digital and data maturity?**

**Discussion**

- It was agreed that without initiatives like VirtualES, it will be difficult to achieve the UK's Net Zero goals. It was raised that a framework that explains the holistic value of the programme is crucial. A framework can support showing people a journey of evolving and taking steps in the right direction to a value framework, which means all will have a vision of what good looks like, and that is when the VirtualES gets realised.
- It was discussed that ESO have started analysing several use cases. One of the larger cases is the Advance Dispatch Optimiser (ADO) where data from twins across the entire network comes together, and scenarios are modelled based on that information. ADO is trying to improve ESO’s optimisation techniques in the control room by making the best decisions based on data coming from the grid.
- It was advised that if DSOs start sharing their data, then this will influence other people too and these agreements can progress industry towards improve impacts for all, and the more people involved, the greater the impact.
- ESO mentioned that they have current grid codes for transmission and distribution. These codes are well defined, so when they want to participate in this grid, they will have a protocol on what data, how to provide, what services to do and how to share them.
- It was concluded that the point of the VirtualES is to focus on interoperability, but that's something that really needs to be addressed, within the framework of data maturity and in terms of the value. Hence, building interoperability right at the start will be useful.

5. **Discussion of priority factor: Creating a governance framework**

- It is critical that the VirtualES operates effectively and cohesively with the wider governance framework present in the energy sector, i.e., those policies, institutions, rules and incentives related to the energy system, and the underlying decision-making process. Specifically, VirtualES must align to and/or promote the institution of a sector wide decision rights and accountability framework that promotes the appropriate behaviours in the creation, sharing, use and control of Digital Assets across the energy sector.

**Reflection Points**

- **What are your thoughts on the end goals of the VirtualES governance?**
- **What do you think are the area where a governance framework would be most critical?**
- **Where are the governance structures that already exist across each strand that you think the VirtualES should leverage, connect to build upon?**

**Discussion**

- It was discussed that changes in the structure, organisations and roles across the energy sector, for example, with changing roles for the ESO and DNOs, it is understandable that many organisations are focussed more on their own IT, data developments and business outcomes rather than sector wide initiatives.
- It was proposed that sometimes the people in the companies who are the most innovative and have the most to offer in terms of shaking up the energy system for the benefit of consumers, have less power to change governance.
- It was advised that having a principle first approach to governance, to keep governance changes in the industry moving at pace. It is crucial to have right individuals in the room working and trying to ensure transparency and clarity on discussions.
• It was mentioned that trade bodies can be important in taking part, but recognising that when trade bodies speak, they are representing commercial and investor interests as well.
• It was agreed that people from different aspects like experienced, traditional and new in market must all be welcomed to develop governance framework.
• It was stated that the existing governance structure and mapping of it is still unknown and are not easy to access. And some accessible ones have governance gaps that currently exist between sectors, industries, levels and stakeholders.
• It was mentioned that there is a need for clear governance on different aspects of VirtualES ecosystem:
  o Regulation
  o Data
  o Technology
  o Funding & commercial
  o Security & Ethics
  o Use cases
  o Delivery
  o Operation
• It was suggested that prioritising regulation first and followed by standards could be beneficial, but to happen that it is probably a long way away, so mapping out what is happening elsewhere that is going to set the standards which could feed into the VirtualES could be useful.
• The introduction of cross-sectoral regulation is also proposed as a potential mechanism to manage transparency and accountability of dependencies between sectors.
• It was recommended that the regulation doesn’t necessarily have to be VirtualES directly, if things are around net zero and how do we achieve this need speaking.
• ESO stated that there’s 3 areas to explore:
  o Firstly, are we making right case to take us to decarbonisation, does everyone understand what we’re trying to do?
  o Secondly, are we going in the right direction, do everyone agrees with what we’re trying to do?
  o Thirdly, are we the right people to do it or should somebody else own it?
• It was concluded that system wide actors must get involved in answering these problems and it may be easier when the VirtualES Programme sits under the FSO, helping to unlock the barriers and combine VirtualES and Digital Twin together.

6. Discussion of priority factor: Engaging stakeholders
• There are broad number of initiatives, routes and mechanism for stakeholder engagement to advance data and digital innovation. Although these initiatives attract range of actors, they lack collaboration and visibility amongst each other. By promoting a more collaborative environment we can unlock the full potential of these engagements.

Reflection Points
• What stakeholder engagement initiatives across the energy sector we should take inspiration from?
• What do you think is the perceived value of the VirtualES?
• Which other initiatives or programmes has done well to ensure value creation?

Discussion
• It was mentioned that Tech UK has instituted a new digital twin steering board. A steering committee is focused on who do need to engage with? and the mapping at a more digital twin specific level.
• The Apollo protocols, which is looking at cross sector interoperability and using digital twins and virtual assets.
• The US Department of Energy was also doing some work, specifically looking at the federal level, data sharing and optimisation using digital strategies.
• It was mentioned that in Europe, that isn't directly digital, but the International Data Space Association are looking at the interoperability between Europe and Japan.
• It was mentioned that stakeholder engagement is like change management, in respect of taking the stakeholders on the journey as you progress in project, but to understand what they desire from the project, which is where the gap analysis comes in and that drives some of the benefits. For example, the BIM delivery project used same approach and identified more and more benefits from project deliverables.
• It was agreed that the more we manipulate the models and the data, the more we get from that data and sometimes considerable cost savings as well.
• It was concluded that for good engagement, treat it like a change management rationale, understand what you want to get out of the start, where you can get benefits for each of your stakeholders and what their desires are in order to support the project plan.

7. Next meeting
• The next meeting will be held on Wednesday 10\textsuperscript{th} May from 13:00 to 15:00.

8. AOB
• The Chair thanked the group for their attendance and contribution.