

Use Cases Advisory Group

Meeting 8 minutes

Date: 17/05/2024	Location: Virtual
Start: 10:00	End: 11:15

Participants

Attendee	Organisation
Professor Jim Hall (Chair)	University of Oxford
Dr Hilary Williams	Energy Systems Catapult
Dr Robyn Lucas	Modo Energy
Sarah Rigby	Scottish and Southern Electricity Networks
Dozie Nnabuife (Observer)	ESO
James Edwards-Tombs (Observer)	ESO
Joanna Webb (Observer)	ESO
Precious Akponah (Observer)	ESO

Apologies

Attendee	Organisation
Corinna Jones	National Gas
Dan Monzani	Aurora Energy Research
Peter Philip	Scotia Gas Networks
Simon Baxter	National Grid Ventures

Agenda

1. **Welcome, introductions and apologies for absence**
 2. **Minutes of last meeting**
 3. **Conflicts of interest review**
 4. **Update on the ESO Virtual Energy System programme and use cases**
 5. **Introduction and purpose of session**
 6. **Benefits framework, methodology and pilot use case benefits**
 7. **Final reflections**
 8. **AOB and next meeting**
-

Discussion and details

Topics discussed

1. **Welcome, introductions and apologies for absence**
 - The Chair welcomed everyone to the meeting.
 - The Technical Secretary gave the apologies for absence:
 - Corinna Jones – National Gas
 - Dan Monzani – Aurora Energy Research
 - Peter Philip – Scotia Gas Networks
 - Simon Baxter – National Grid Ventures
 2. **Minutes of the last meeting**
 - The minutes of the previous advisory group meeting on 15/03/24 were approved as an accurate record.
 3. **Conflicts of interest review**
 - No conflicts of interest were declared.
 4. **Update on the ESO Virtual Energy System programme and use cases**
 - The Virtual Energy System pilot phase is progressing, using operational planning as the use case.
 - Having agreed on the proposed functional specification of a data sharing infrastructure based on desktop research, the pilot will trial and validate these proposals in practice.
 - The pilot will mark the beginning of the build process, with the testing, elaboration and prioritisation of requirements, and refinement of the architecture in a virtual lab environment.
 - The Advanced Dispatch Optimiser programme is progressing to the next stage of an international benchmarking project.
 - The Powering Wales Renewably project has successfully completed its Alpha phase and the Beta phase funding application will be submitted shortly, with new partners National Gas and Wales and West Utilities joining for the Beta phase for a more whole system approach.
 - The first live CrowdFlex domestic flexibility event took place in May and involved a demand turn-down nationally across 14 grid supply points. No unusual observations were witnessed
-

during the event, so initial indications are that it was a success and will be confirmed once records and meters have been checked. A total of 31 live events are planned over the summer.

5. Introduction and purpose of session

- The ESO summarised the briefing pack and the aims of the meeting. The ESO requested insights and perspectives from the advisory group on:
 - The benefit framework for the Virtual Energy System and standardised approach to benefit analysis across use cases.
 - The benefit framework methodology and categories.
 - The pilot use case benefit map.

6. Benefits framework, methodology and pilot use case benefits

- The ESO gave an overview of the standardised approach to benefit framework, categories and assessment.

Reflection points

- ***What would you like to see further quantified?***
- ***Are there any other relevant benefits you would like to see included?***

Discussion

- The reliability and security of supply benefits could be expanded upon and more quantified, and could also include more information on their current and future status.
- It was suggested that wider benefits to the community could be included, such as increasing community involvement, such as vulnerable customers, and enabling an equitable transition.
- The ESO gave an overview of the standardised approach to benefit framework, categories and assessment.

Categories of benefits

- The ESO summarised the categories of benefits of reduced consumer bills, increased system operability and resilience, reduced greenhouse gas emissions and other wider benefits.

Reflection points

- ***Do you think that the four categories of benefits provide a suitable instrument or method for prioritising use cases for the Virtual Energy System?***
- ***Are there any other benefit categories we should be considering?***

Discussion

- Under Category 2 (increased system operability and resilience), in the Gas and Electricity section it was noted that for electricity the Value of Lost Load (VoLL) could be considered to be captured and quantified in consumer bills through DNO incentives.
- Also under Category 2, in the electricity section, it was suggested that maintaining frequency, cybersecurity and climate change (all relating to resilience) could be added. It was highlighted that cybersecurity would increase in relevance, due to the aim of the Virtual Energy System of sharing data between organisations and would need to be thoroughly assessed and tested.
- Under Category 4 (other wider benefits) it was suggested that benefits to local communities and using local energy resources could be included. Also, a holistic, more consistent and long-term approach to infrastructure development and their planning regimes could be considered in more detail.
- Also under Category 4, another benefit could be the standardisation of low carbon technologies and their interfaces, to increase adoption, particularly in vulnerable consumer groups, and also increasing their long-term success rates.
- It was noted that under macroeconomics in Category 4, the benefit of speeding up connections should perhaps come before economic growth.

Pilot use case benefits

- The ESO summarised the Operational Outage Planning use case business values and benefits and the benefit map.

Reflection point

- ***Are there any other benefits that the DSI could provide for the pilot use case?***

Discussion

- It was noted that more efficient carbon savings could be achieved with the forward planning this use case would offer.
- It was thought that reducing stress on the planning teams and therefore less turnover and risk, and more reliable and optimal decisions would be a benefit, but it might not be considered a key benefit.
- Risks were also raised as a factor that needs to be considered; the risks associated with implementing the pilot use case and risks associated with not implementing.
- The use case could enable a marketplace for flexibility, to offer opportunities for low carbon technologies to provide cover during planned maintenance.
- The ESO clarified that the pilot use case will be looking to standardise the data, models and process used in outage planning and to automate the data sharing and exchange between organisations (currently it is a manual process).

7. Final reflections

- The Chair thanked the group for their attendance and valuable contributions.

8. AOB and next meeting

- The ESO updated the advisory group on the next steps for the programme and the pilot building phase:
 - The Virtual Energy System programme team are going to be focusing on delivering the pilot phase and while this is taking place the advisory group meetings will be paused.
 - It is envisaged that the advisory groups will reconvene once there are outputs and learnings from the pilot phase to share with the group for insights and feedback.
 - The ESO thanked the advisory group for their valuable input to the programme so far and looks forward to future meetings and discussions.
-