

**Smart Systems Forum Thursday 05 October 2017 11:30-15:00**

**Meeting No: 1 Chair: David Capper, Deputy Director, Electricity Systems, BEIS**

Name	Organisation	
Suleman Alli	UK Power Networks	Apologies
Aimee Betts-Charalambous	techUK	Attended
Duncan Botting	Institution of Engineering and Technology	Attended
Eric Brown	Energy Systems Catapult	Attended
Mark Cox	EDF Energy	Apologies
Patrick Erwin	Northern Powergrid	Attended
Toby Ferenczi	Ovo Energy	Attended
Paul Fidler	Energy Networks Association	Attended
Audrey Gallacher	Energy UK	Attended
Chris Harris	Npower	Attended
David Hill	Open Energi	Apologies
David Holmes	Quarry Battery	Attended
Stew Horne	Citizens Advice Bureau	Attended
Merlin Hyman	Regen	Attended
Amanda King <sup>1</sup>	Origami Energy	Apologies
Ron Loveland	Welsh Government	Attended
Ian Luney	AES	Attended
Cathy McClay	National Grid	Attended
Jim McOmish	SP Energy Networks	Attended
Fiona Navesey	Centrica	Attended
Georgina Penfold	Electricity Storage Network	Attended
Emma Pinchbeck	Renewable UK	Apologies
Neal Rafferty	Scottish Government	Attended
Stewart Reid	SSE Networks	Attended
David Roberts	EA Technology	Attended
Simon Roberts	Centre for Sustainable Energy	Attended
Tim Rotheray	Association for Decentralised Energy	Attended
Nina Skorupska	Renewable Energy Association	Attended
Patrick Smart	Renewable Energy Systems	Attended
Goran Strbac	Imperial College	Attended
Phil Swift	Western Power Distribution	Attended
Vincent Thornley	Fundamentals/BEAMA	Attended
Judith Ward	Sustainability First	Attended
Nicola Waters	Solar Trade Association	Attended

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<sup>1</sup> This Member no longer works at the organisation and we are waiting for an alternative name to be put forward for consideration

## Other attendees

Andy Burgess	Ofgem	Associate Partner
David Capper	BEIS	Deputy Director, Electricity Systems
Rachel Cooper	BEIS	Head of Smart Energy Systems team
Gemma Huett	BEIS	Head of Flexibility Markets
Holly Jeffers	BEIS	Policy Adviser Markets for flexibility
Russell Jenkins	BEIS	Head of Demand Side Response
Jeremy Pocklington	BEIS	Energy and Security Director General
Henry Witt	BEIS	Policy and Project Adviser
Louise Van Rensburg	Ofgem	Head of Flexibility and Whole System Coordination

**David Capper** opened the Smart Systems Forum (SSF) noting in particular the importance of working together with industry to help BEIS and Ofgem implement the Smart Systems and Flexibility Plan (SSFP).

**Jeremy Pocklington** delivered the welcoming speech, stating that the SSFP is an important part of the Government's Industrial Strategy and the forthcoming Clean Growth Strategy. Jeremy:

- Noted the opportunity of working with Ofgem to steer the SSFP to success and asked for views on specific barriers to smart technologies and systems;
- Reiterated the triple aims of the SSFP: removing regulatory barriers, making smart work for consumers and businesses and ensuring that we have market structures in place which work for flexibility;
- Noted active competitions, worth around £40m so far, for Smart Innovation projects; and
- Highlighted recent progress against actions in the Plan: Ofgem have published two consultations on energy storage – one on treatment for licensing, the other on ownership by network operators.

Questions were taken by Jeremy after the speech, around barriers to smart technologies and systems, (such as removing regulatory barriers), making smart work for consumers and businesses, and ensuring that we have market structures in place which work for flexibility.

**Rachel Cooper** and **Andy Burgess (Ofgem)** summarised the progress of implementing the SSFP so far. Andy set the SSFP in the context of Ofgem's wider reform work, referring to Ofgem's published Strategy for Regulating the Future Energy System<sup>2</sup>, and how current and proposed activities fit into this; and Ofgem's Targeted Charging Review - Significant Code Review launch<sup>3</sup> so that residual

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<sup>2</sup> <https://www.ofgem.gov.uk/publications-and-updates/our-strategy-regulating-future-energy-system>

<sup>3</sup> <https://www.ofgem.gov.uk/publications-and-updates/targeted-charging-review-significant-code-review-launch>

charging for transmission and distribution meets the interests of consumers, both now and in future. Rachel highlighted that the Smart Systems Forum forms an important part of the continuing dialogue with industry and the role of Government and industry to ensure the benefits of a smart energy system are communicated more widely.

**Enabling domestic demand-side flexibility: what issues still need to be tackled?** Judith Ward presented on consumer perspectives and Power Responsive, including safeguards needed for consumers (slides attached). Afterwards, members were asked to discuss three key questions on domestic DSR in small groups. Key points are:

**1. What is required for smart tariffs to become prevalent?**

- **Economic drivers:** set price signals for consumers (fixed vs ToU/cost-reflective tariffs); increase the role of automation - deploying the necessary technology
- **Lifestyle factors:** consider consumer behaviour / expectations
- **Industry drivers:** provide network solutions e.g. multiple revenue streams by stacking value from the market; improved / upgraded infrastructure
- **Policy drivers:** provide clear timeframes for delivery; reduce complexity of smart tariffs (simplicity); maximise benefits from multiple policies affecting consumers
- **Innovation:** including Ofgem's innovation link and regulatory sandbox
- **Other enablers:** smart meter rollout and half hourly settlement reform; the move toward the IOT and learning about the benefits of smart homes from other smart technologies not related to energy (e.g. health)

**2. What business models could unlock domestic DSR at scale, and what is the role for aggregators and other third parties in realising this?**

- **For aggregators and suppliers:**
  - Bring energy suppliers and aggregators together to allow greater market access to certain revenue streams (e.g. the Balancing Mechanism)
  - Increase data access / availability, transparency and sharing
  - Enable participation of communities in domestic DSR
  - Increase the role of automation in allowing greater adoption of domestic DSR
  - Consider role of manufacturers and how to encourage wide spread adoption of smart capability in appliances
- **For consumers:**
  - Create business models where the individual consumer benefits, or where benefits are spread across all consumers
  - Ensure consumers are interested in ToU tariffs, simplicity is key
  - Provide supply licence conditions to ensure consumer protection
  - Consider how customers are realising the benefits / seeing where the benefits accrue

- Think through consumer demands and lifestyle choices e.g. for a holistic smart energy package for domestic consumers, and the ability of the consumer to retain control is key

**3. How can we ensure that all domestic consumers, including those in vulnerable situations, could benefit from DSR as part of their daily routine?**

- **Political drivers:**
  - Fully join up HMG policies e.g. on domestic smart energy and energy efficiency policies
  - Ensure interoperability of smart appliances
  - Increase digital inclusion for vulnerable consumers and those in rural areas
  - Consider what DSO obligations would be for customers
- **Industry and market drivers:**
  - Bring together DSR opportunities that network companies offer to provide benefits to customers
  - Understand where value exists in the market to deliver what the energy system needs
  - Ensure there are no cost barriers preventing vulnerable consumers from entering the market
  - Reduce distributional impacts, e.g. by offering functionality and comfort (i.e. energy as a service) to all energy customers
- Facilitate potential for participation by local authorities and housing associations, including on innovation

**Expectations of the Open Network Project & the transition to Distribution System Operators.** Presentations by Nicola Waters, Tim Rotheray, Stewart Reid

**Nicola Waters** spoke about the need for co-ordination, fairness and transparency in the DNO to DSO transition and to think about this from an industry perspective, and in a consistent way, for example using consistent terminology.

**Tim Rotheray** spoke about consumers and the drivers of powering their everyday lives including transport, plus the need to stack value of services and ensuring the administrative process of the services are also stackable/aligned. He also spoke about the importance of thinking about what the solutions look like from the consumer perspective.

**Stewart Reid** provided an overview of the Open Networks Project in his presentation (slides attached).

These presentations / talks were followed by a plenary discussion on the following three key DNO to DSO transition questions:

**1. What do you think a successful transition to DSOs looks like, and how does this relate to other developments in the market?**

- Clarify roles and responsibilities for parties within the energy system – important to have an open debate.
- Identify what consumers want and the benefits they expect to receive, need to understand what DSO means for different players
- There is a need to ensure the DSO transition takes a whole system optimisation approach and this does not happen too late
- Simplify markets: reform ancillary services and align the outcome of the System Needs and Products Strategy paper and the DSO transition
- Clarify what flexibility developers are investing in as part of the DSO transition in order to gain investor confidence

**2. What do you think are the most important elements to see in the Open Networks project in December?**

- Co-ordinate between the SO, TOs and DNOs
- Clarify the size of benefits and services that flexible networks can bring
- Provide commercial certainty for local and national markets
- Offer solutions from the enabling frameworks set out in the FPSA reports (from the Energy Systems Catapult and IET)

**3. What do you think should be the next priorities for the ENA and DNOs following the Open Networks report in December?**

- Clearly identify the roles and responsibilities of parties in the energy system
- Continue to develop coordinated approaches between DNOs and the SO to manage the energy system
- Consider the difference between coordination in a technical sense, i.e. data, and local markets coordination
- Develop products and services that the DSO will procure
- Pull together learnings from existing innovation
- Consider what is meant by whole system and how the DSO will consider energy vectors outside of electricity
- Require a regulatory framework that will allow DSOs to develop

The meeting was closed by David Capper with a discussion of the content of the TOR, including adding the Chatham House rule. The chairs agreed to reflect on the views raised in the meeting.