

Smart Grids Forum (SGF) – Meeting 1

This was the inaugural meeting of the Ofgem/DECC Smart Grid Forum.	From Date and time of Meeting Location	Neil Copeland 06 April 2011 between 1000-1300 Ofgem, 9 Millbank, London	11 April 2011
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1. Present

1.1. The full list of those attending the meeting is attached as Annex 1.

2. Welcome

2.1. The Joint Chairs, Jonathan Brearley (JB) (DECC) and Stuart Cook (SC) (Ofgem), welcomed the Members of the SGF to the meeting and thanked them for attending. They expressed the hope that the SGF would reach a common understanding of the value and benefits that a smart grid could deliver and the actions that DECC, Ofgem and other stakeholders could take to help realise these benefits. It is important to understand what functions a smart grid would be required to perform in a low carbon energy system before understanding the technologies required. SC emphasised that he did not want the SGF to becoming a talking shop. He is looking for the SGF to identify barriers to the development of a smart grid. He hopes the SGF will then go on to crystallize a plan of action for the future.

2.1. Before opening the floor to discuss the SGF's Terms of Reference JB invited Judith Ward (JW) to describe work taking place at Sustainability First. JW spoke about a new three-year Sustainability First project on 'GB Electricity Demand – *realising the resource*, supported in its first year via one of the Low Carbon Network Fund projects, with a sponsor-group co-ordinated through a Smart Demand Forum. She hoped that the work of the Smart Demand Forum and the SGF would complement each other. JW described a key aim of the Smart Demand Forum as being to look at the electricity demand-side, with a strong customer and consumer-focus. The Smart Demand Forum will also examine the practical links between the roll out of smart meters and the electricity demand-side and the key economic, commercial, regulatory and policy issues arising through the value chain, including for the networks.

Post Meeting Note: - The Sustainability First Paper has now been circulated by Ofgem

2.2. The report commissioned by Ofgem and DECC titled "How to deliver smarter grids in GB" had been circulated before the meeting and the agenda had been set to address the key themes of the report.

3. Terms of Reference (ToRs)

3.1. Draft ToRs had been circulated before the meeting. The Chair referred to comments that Ofgem had received from two Members of the Forum regarding the ToRs. An updated draft of the ToRs which addressed these points was passed out. JB asked if there were any additional comments.

3.2. One member of the SGF questioned whether there was deliberate emphasis on electricity rather than gas. SC responded that at the moment the emphasis was certainly on electricity. A member also asked how transparent the Forum would be. SC and JB responded that all the meetings of the Forum would be minuted and that these minutes would be published online.

3.3. Some Members of the Forum questioned whether there were any resources available to the Forum to complete substantive pieces of work. Many of the Members expressed the opinion that they did not wish the SGF to turn into a talking shop and resources should be available to complete real deliverables. SC made it clear that if a strong case could be made for a piece of work then the resources would be found. SC also pointed out that some of the issues the SGF would be looking at would need to be examined by the distribution network operators (DNOs) in preparation for the next price control known as RIIO:ED1. For example, in order to construct a well justified business plan for the next price control the DNOs will have to take into account likely developments in technology and in use of the network over the period of the price control. It may be appropriate for stakeholders other than DECC and Ofgem to resource specific workstreams.

3.4. JB commented that the better the outputs from the SGF are the easier it will be to set policy. Members were encouraged to provide any further comments on the ToRs before publication.

Post meeting note – no further comments were received and the ToRs will now be published as tabled at the meeting.

4. Values and Drivers of a Smart Grid

4.1. Some Members argued there was not a common understanding of the term smart grid. Typically, people from different parts of the supply/value chain quite naturally approach the issue from their own perspective. It was agreed that before establishing what technology would be used to construct a smart grid it was necessary to go through a number of other steps, in particular deciding what services we would require a smart grid to provide.

4.2. The Members agreed that it was necessary to come to a common view as to the network services that are most likely to be required in the future. It would be very helpful to develop and agree a number of scenarios (i.e. generation mix and demand characteristics) which could be used to test smart grid options as the work of the SGF continues.

4.3. Some members pointed out that a smart grid would be essential to facilitate the transition to a low carbon electricity supply system. Other members pointed out that a smart grid could also be used to increase security of supply.

4.4. The SGF also agreed that work had to be done to understand who all the stakeholders in a smart grid were. It is important to understand all of the links in the value chain and who interacts with whom. A number of SGF Members expressed the opinion that this should be more than just a network perspective. It will be important to understand the roles of generators, retailers, network companies and consumers in the evolution of a smart grid.

4.5. Members of the SGF pointed out that it was important to understand exactly what functionalities were required of a smart grid. Having discussed some of the areas where a smart grid could act as a facilitator the members of the Forum emphasised that before saying what a smart grid is, it is necessary to understand exactly what functionalities we want a smart grid to deliver. One member pointed out that it is possible to have a smart grid without facilitating the transition to a low carbon economy or ensuring security of supply.

4.6. The discussion of values and drivers raised the issue of the disaggregated value chain and the importance of the overall market model. This would determine who would capture the benefits of smart grids and who logically therefore should fund them. The difficulties of carrying out a cost benefit analysis of smart grid opportunities were also raised.

4.7. Discussion of system modelling introduced the work that the ETI has done in this area. DECC took an action to establish what the current and future position would be in terms of access to ETI's model.

5. Barriers to Smart Grids

5.1. The SGF discussed the barriers to smart grids.

5.2. The conversation highlighted uncertainty as a major barrier to the development of a smart grid. Some members of the forum made the point that different parts of the electricity supply chain could cope with this uncertainty better than others. The network companies, with the security of financing under a price control, could make plans based on the next five or eight years. However, the uncertainties faced by the network companies will present very real challenges. In contrast, the suppliers operating in a market had to face market uncertainties as well as being unsure of how the technologies of a smart grid might affect their operations.

5.3. One member asked whether there is a sufficient level of ambition in relation to our network development plans. The view was expressed that it is likely that network functionalities and services will develop in ways that we cannot currently envisage if we commit to a smarter grid.

5.4. One of the biggest potential barriers to smart grids was seen as customer interaction. It was recognised by a number of Forum Members that effective communication with customers would be required. It was recognised that communicating with consumers is likely to be led by suppliers under the current 'supplier hub' model. This was acknowledged as being an area where the network companies did not have a significant amount of experience.

5.5. The SGF discussed other possible barriers. The Members of the Forum agreed that the existing demand profile is unlikely to be replicated in the future. In particular, the profile at local level could be very much more volatile. One member highlighted the challenges of getting beyond the trialling stage and the need to build delivery capacity.

5.6. It was also pointed out by a number of those around the table that what might be a barrier to one part of the electricity supply chain might be a benefit to another. The example of electric vehicles (EVs) was used. EVs will present new challenges to network companies. However, they may provide a benefit to generators and suppliers as they will increase electricity consumption and potentially offer a new way of balancing the system.

6. Potential areas of work

6.1. Throughout their discussion the members of the forum referred to possible work streams that could be taken forward by the SGF. The Forum agreed that different groups would take forward streams of work based on their expertise and resources.

6.2. Early in the meeting some of the SGF Members felt that it would be useful to review the outputs from the Electricity Networks Strategy Group. It was felt that this might be useful in providing a starting point for the work of the SGF.

6.3. Another area considered important by the Forum was to construct a number of possible hypothesis/scenarios. The need for developing a range of scenarios is driven purely by uncertainty as to what the future holds and the range of possible outcomes.

6.4. The forum agreed that it was necessary to establish a number of rules of thumb in relation to how much a smart grid would cost. It was agreed that at the moment there is not a common methodology for assessing potential smart grid technologies, and that it would be useful to establish one.

6.5. The Forum appreciated that extra work would be required due to the disaggregated electricity supply chain. It is clear that there would be costs and benefits to a smart grid. However work is required to establish exactly where and to whom costs and benefits would fall.

6.6. The relationship with the smart metering programme was discussed. There was concern that decisions in relation to smart meters might close off options for smart grids. The SGF felt that it would be useful to map what decisions had to be made soon before doors on these options did close.

6.7. Finally in terms of industry issues, it was felt that work should be done to examine all the possibilities for pooling non-commercially sensitive customer consumption data. Related to this was the requirement to look at the issue of demand side management.

6.8. It was also agreed that some work should be done to establish some broader means of working for the Forum. This included examining the scope and the profile of the SGF.

6.9. To conclude the meeting SC summarised the most important issues discussed and proposed in outline a number of actions that should be pursued. The meeting gave broad approval to this outline. Ofgem took an action to document this and feed it back to the members for their comment/approval. It would then be further developed into an initial work plan for the Forum.

Smart Metering

Robert Thornes of DECC provided an update on the smart metering programme over lunchtime. In particular the [announcements made on 30 March](#) were summarised and discussed. The network businesses have had a close involvement in the smart meter programme. DECC and Ofgem will work to ensure that smart meter and smart grid activities remain closely linked.

Annex 1

First Meeting of the Ofgem/DECC Smart Grid Forum

6 April 2011

Attendees

Stuart Cook (Joint Chair)	Ofgem
Jonathan Brearley (Joint Chair)	DECC
Mike Calviou	National Grid
Dave Openshaw	UKPN
Steve Johnson	ENW
Phil Jones	CE Electric
Mark Mathieson	SSE
Chris Harris	RWE nPower
Ashley Pocock	EDF
Graham Meeks	CHPA
Roger Critchley	BEAMA
Chris Welby	Good Energy
Petter Allison	British Gas
Scott McGaraghan	EnerNOC
Gavin Jones	Intellect
Judith Ward	Sustainability First
John Scott	Chiltern Power / KEMA
Duncan Botting	PB Power
Steve Unger	Ofcom
Nick Jenkins	Cardiff University
Michael Hurwitz	OLEV

Ofgem

Rachel Fletcher, Gareth Evans, Neil Copeland

DECC

Andrew Perry, John Christie, Robert Thornes (Lunchtime presentation)