

**MINUTES OF THE FIRST MEETING OF THE
ENSG SMART GRIDS WORKING GROUP**
Held at BIS Conference Centre, Victoria Street, London, SW1H 0ET
10:00 – 12:30, WEDNESDAY 15th JULY 2009

Present:

Co-Chairs

DECC	Giles Scott (Chair on the day)
Ofgem	Gareth Evans

Members

Eon Central Networks	Jeff Douglas
National Grid	Michael Edgar
EDF Energy Networks	Dave Openshaw
RWE Npower	Chris Harris
SEDG	Tim Green (for Goran Strbac)
Centrica Energy	Fiona Navesey
CE Electric	Alan Creighton
Scottish Power	Diyar Kadar
Scottish & Southern Energy	David MacLeman (for Stewart Reid)
Energy Research Partnership	Charlotte Ramsay
Energy Networks Association	Alan Claxton

Government Members

DfT	Rosie Snashall (for Sachin Suchak)
-----	------------------------------------

Also in attendance

Ofgem	Rachel Fletcher
DECC	John Christie
AEAT (Secretariat)	Chris Naish

Apologies

DECC	Lorraine Hamid
CLG	Peter Ellis & Bob Ledsome
ETI	Richard Knight
Scottish & Southern	Stewart Reid
Imperial College	Goran Strbac
DfT	Sachin Suchak

1. Welcome and Introduction

- 1.1 The Chairman welcomed the participants and told the group that Smart Grids were a key part of the plans launched today in the Energy White Paper¹. Specifically the paper has sections on networks and refers to the ENSG 2020 Transmission Vision report and to Smart Grids.
- 1.2 Alongside the White Paper there were related launches of:
- The Renewable Energy Strategy
 - The Low Carbon Strategy for Transport
 - The Low Carbon Business Strategy
- 1.3 The Chairman summarised the outcomes he wanted from the meeting:
- The group to introduce themselves with a short summary of their relevant background
 - A common understanding of the objectives for the Smart Grids Vision and Route Map and how these were to be delivered
 - Agreement on the membership of the group and identification of agreed additional members
 - A start to be made on information collection
- 1.4 The Chairman asked the members to introduce themselves and briefly summarise their relevant background.
- 1.5 Apologies for absence and alternates attending were noted.

2. Notification of AOB

- 2.1 The Chairman asked the members whether they had any items they wished to add to the agenda.
- 2.2 Only one point was raised – it was requested that the group consider a cost benefit analysis of Smart Grids as a core activity. The Chairman responded that he agreed this was a key activity and suggested it was discussed further under agenda Item 4 (Group TOR).

3. Smart Grid and DECC Policy for Energy & Climate Change

- 3.1 The Chairman summarised the key issues for energy policy going forward and how these related to Smart Grids:
- The commitment to an 80% reduction in carbon emissions by 2050
 - Energy security of supply
 - Economic system of energy supply – delivering a fair price for consumers
 - Ensuring business benefits to UK are maximised.
- 3.2 There was presently a pressing need to develop government policy on Smart Grids within the context of these 4 key policy outcomes. The Chairman

¹ http://www.decc.gov.uk/en/content/cms/publications/lc_trans_plan/lc_trans_plan.aspx

stated that the group would have a key role in this process and encouraged them to come forward with fresh thinking, bringing new ideas to the group and to be creative and open minded.

- 3.3 For the Route Map for Smart Grids he suggested the objectives should involve:
- Identifying the issues and barriers to delivering Smart Grids
 - Identifying enablers
 - Proposing potential policy options for consideration before the end of the year.
- 3.4 The Secretary of State (SoS) has indicated that he is keen to see a policy around Smart Grids by the end of the year.
- 3.5 The Chairman then invited Ofgem to provide their perspective on Smart Grids.
- 3.6 Ofgem responded that this could be broken down into 3 key areas:
- I The high level perspective
 - II The relationship to the Electricity Distribution Price Control Review (DPCR)
 - III The key objectives and challenges for the group.

I The high level perspective

- 3.7 A series of challenges face the networks in the future:
- They will have to change significantly from their present largely passive role
 - The network companies will have to become more flexible:
 - On network connections
 - On network use
 - On network control and operation – will network operators become system controllers? – balancing their own networks with minimal intervention from the National Grid?
- 3.8 It is essential that change is taken forward in a timely way and not too late with the related risk that innovation and commercial benefits are hampered or missed altogether.
- 3.9 Smart Grids are seen by Ofgem as one part of a range of solutions – they are a means to an end rather than a total solution in themselves.
- 3.10 The present key Ofgem project on RPI-X @ 20 has an important relationship to this.

II The relationship to DPCR 5

- 3.11 The last DPCR recognised that there were barriers to innovation within network companies and introduced a limited range of innovation funds (IFI & RPZs). The present price control is likely to create a greater pool of funds. Initial proposals will be published on 3rd August. It was suggested that the

Bolder Colorado Smart Cities Initiative was one possible model that Ofgem may consider as a template for a similar initiative in GB.

III The key objectives and challenges for the group

- 3.12 Ofgem were looking for the group to scope out what the network companies would do during the DPCR 5 period with the main focus on doing things on the networks rather than the transmission system.
- 3.13 It will be important to understand the challenges in the commercial and contractual arrangements areas as well as (and perhaps more importantly than) the technical innovations.
- 3.14 It was agreed that while the experiences and innovations from overseas were an important input to the group's considerations, it was also highly likely that similar innovations would need to be trialled in the GB context for the reasons of the different market structures, regulatory regimes etc.
- 3.15 In the following discussion the point was made that there were a number of ways of expressing the economic case and the costs and benefits of Smart Grids – it was felt important that this should not be limited to a p/kWh approach and should have the related consumption savings etc built-in in some way. All agreed the cost benefit assessment of the Smart Grid was a key challenge and deliverable for the group.

4 The Group's Terms of Reference

- 4.1 The Chairman invited the group to ask questions and comment on the group's Terms of Reference that were provided following the last ENSG meeting.
- 4.2 The key points raised in the discussion can be summarised as:
- Need to decide what assumptions are to be made in developing the vision and route map and the level of detail that will be required or is reasonable.
 - Need to recognise the broad stakeholder base for Smart Grid delivery *inter alia*:
 - National Grid
 - Distribution Network Operators
 - Electricity retailers
 - Technology suppliers
 - Consumers
 - The networks and the network companies will need to change and in particular be more adaptable and flexible. This will be a major consideration.
 - The range of horizons (2020, 2030 and 2050) in the TOR will need different levels of treatment – the most important and the one where a clearer picture with more certainty in its assumptions etc will be 2020, the group and its consultants must take a view on 2030 and 2050 but in decreasing degrees of effort, focus and time.

- How flexibility and adaptability from the network operator is recognised in the DPCRs will be a significant issue. Ofgem will need to adapt their regulatory assumptions to allow this to be incentivised. SEDG work on valuing flexibility was referred to.
 - In developing Smart Grids the cost benefit to GB, the retailer and the network operator would need to be recognised and reflected in the business models and regulatory structure.
 - The affordability of Smart Grids both to GB and the electricity consumer would need to be assessed and this would not be straightforward.
 - The ownership of the Vision and Route Map needed to be agreed.
 - There is a danger of attempting to cover all scenarios – perhaps the group needs to define an initial set of core assumptions to work from? These could be periodically reviewed to check they remain valid.
- 4.3 The Chairman summarised the discussion referring to each of the above points and confirmed that the timescale for the group was to deliver a vision statement, which had been agreed with ENSG, by 30th October and a similarly agreed Route Map for delivery of the vision by the 21st December.

5 Membership of the Group

- 5.1 The Chairman introduced this item stating that it was recognised that the group needed to consider adding to its membership given the breadth of the stakeholders and issues involved in delivering the TOR objectives.
- 5.2 He asked the group if they would be agreeable to Western Power Distribution being added to the group as he was aware that they have been pro-active in setting-up a novel distribution network metering trial and interesting information relevant to the group would be flowing from this.

Action 1: Chair (DECC) to ask WPD to provide the details of their nominee to the Secretariat.

- 5.3 Other suggestions included technology providers and communication companies. Smart Grid Solutions (SGS) were recognised as one of the leading suppliers in the area and it was agreed they should be asked if they would like to participate in the group.

Action 2: Chair (Ofgem) to approach SGS and invite participation.

- 5.4 The Carbon Trust had also approached the group Chairs asking if they could be involved and this was agreed by the meeting.

Action 3: Chair (Ofgem) to confirm CT involvement and ask for details of their nominee to be sent to the Secretariat

- 5.5 The representation of the small and medium size low carbon generator and developer community was advocated and agreed. The meeting asked the Secretariat to investigate whether the 3 main generator Trade Associations could agree on a nominee to represent all three of them, to avoid the group growing too large.

Action 4: Secretariat to contact REA (Gaynor Hartnell) and discuss representation.

- 5.6 It was agreed that further research was required to identify the best representative for the manufacturing and system supplier base. It was also

recognised there would be commercial issues in this area that the group would need to be sensitive to.

Action 5: Chairs to jointly investigate further and report back to group by e-mail.

- 5.7 Consumer group representation was discussed but it was agreed that this may not be necessary at all meetings as Ofgem covered consumer protection under its responsibilities.
- 5.8 It was pointed out that ENW was the sole DNO not represented on the group – it was agreed that they should be approached to assess their views on the group and whether they felt strongly on participation or whether they were content to be represented by the ENA and the other DNOs.

Action 6: Chair (Ofgem) to discuss with ENW and decide with DECC following view from ENW.

Appointment of Consultants to support the Group and lead in preparing the Vision and Route Map.

- 5.9 DECC provided copies of the ITT that had been sent to a number of specialist electricity industry consultancies (10). The Chair reported that only one of those invited had indicated it would not bid. The Chair invited a member of the group to participate in the selection process for this DECC funded contract. A member was agreed.
- 5.10 The selection and appointment process should see a consultant in place by Early August.

Timeline for Delivery of TOR objectives – including Vision and Route Map

- 5.11 DECC circulated to the group a timeline for the delivery of the TOR objectives. This is attached to the minutes as Annex 1.

6 Energy Research Partnership (ERP) Activities related to Smart Grids and wider discussion of the European Context

- 6.1 The Chairman invited the ERP to make a presentation on work they had been leading with their partners related to Smart Grids.
- 6.2 Points raised in the following discussion were:
- It is essential to take a whole system view
 - Overseas experience will inform UK decisions but it will be necessary in the majority of situations to trial or demonstrate in the GB context (market, regulatory differences).
 - The Smart Grids Technology Platform (STP) project had attempted to assess the cost of smart grid implementation but was struggling to arrive at agreement on a set of figures.
 - It would be beneficial to assess the 'Inherent characteristics' and the 'Inherited characteristics' of the GB market in relation to the vision and route map work and delineate the two – one set can potentially be addressed (e.g. market structures etc) the other has to be taken as a given (GB is an Island, it has an excellent wind resource etc).

Action 7: Members to identify relevant Smart Grid initiatives and projects they are aware of and send web links, summary documents etc to the Secretariat, with copies to the joint Chairs.

- 6.3 The Chairman invited the Centre for Sustainable Electricity and Distributed generation (SEDG) to briefly summarise the note they had sent to the group before the meeting.
- 6.4 The following points were made:
- Demand and supply matching will become increasingly important – demand side response will be a key issue.
 - Smart Grids are about taking a wide unrestricted view on network solutions (i.e. additional hardware in the form of copper wire, pylons, transformers and switchgear) versus non-network solutions (i.e. software control, demand side response, generation control).
 - Some SG technologies are already available – grids are not ‘dumb’
 - The future needs to bring co-ordinated control to the various measures and assess the technological and cost benefits of the whole system solutions.
 - It will be important to recognise the Network operator – retailer – market relationship to ensure the commercial benefits are properly recognised, priced and attributed.
 - There is a balance to be recognised between renewable access and supply standards.
- 6.5 The DECC Chair made the closing comment to the group on this agenda item that while the SQSS review and 2020 Transmission Vision were underway or in place, it remained important to consider fresh thinking to ensure the building blocks were in place to enable solutions to be implemented in a least cost and timely manner.
- 6.6 Ofgem commented that the RPI-X @20 project related to these issues and it would be very helpful if the Smart Grid vision and route map work could be aligned with the RPI-X @20 timescales.

Action 8: DEC and Ofgem to review timescales and interactions on these issues.

7 Definitions of the Smart Grid

- 7.1. The Chairman invited the Group to comment on the definition of Smart Grids as used in the TOR.
- 7.2. The following points were raised:
- Is the group’s remit restricted to ‘Electricity’ only – i.e. both gas and water could be included within a Smart Grids definition.
 - Is the focus on distribution only?
 - The definition needs to encompass the concept of ‘whole system’ approach.
 - There was a need to co-ordinate across the full range of stakeholder government Departments: Communities and Local Government, Transport, DECC and BIS (plus Ofgem).

- The group was informed that an 'Office of Low Emission Vehicles' had been set up recently to co-ordinate government activity in this area, DfT, CLG, BIS and DECC were involved.
- The Office of Climate Change is also a relevant stakeholder.

7.3. The Chairman brought this item to a close as the agreed meeting end point time was approaching. He asked all members to consider the definition as it was important that the group moved forward with an agreed position on what the smart Grid was for the purposes of developing the Vision and Route Map.

Action 9: All members to review the definition of Smart Grids in the TOR and send comments to the Secretariat who will collate and circulate a short note summarising the views expressed.

8 Next Steps

7.4. The Chairman summarised the next steps:

- DECC to get consultants in place as soon as possible so they are able to make a contribution to the next meeting.
- All members to identify relevant Smart Grid activities from the UK and overseas that they are aware of and send weblinks etc to the Secretariat.
- DECC and Ofgem to review timelines for Vision and Route Map delivery in the light of RPI-X @20 etc.
- Various actions on broadening membership to be taken forward (as per actions in these minutes).
- Secretariat to prepare and circulate minutes, copies of presentations and actions.

9 Schedule of Meetings and Close

7.5. The Secretariat confirmed the next meetings would be held on 20th August from 14:00 to 17:00 and 25th September from 10:00 to 12:30. Both meetings will be held at the BIS Conference Centre.

7.6. The Chairmen thanked the members for their attendance and input and closed the meeting.

-o0o-