

# Smart Meter Design Sub Group 3 (SMDSG3) – Meeting #6 Note

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Note of discussion and actions from SMDSG3 Meeting No. 6	From Date and time of Meeting Location	Paul Newman 15 November 2010 10:00-16:00 PA consulting, 123 Buckingham Palace Road, London
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## 1. Present

1.1. Ofgem –Janet Townsend-Stojic, Peter Morgan, Paul Newman

1.2. SMDSG3 members:

AMO	Ian Dobson
BEAMA	John Parsons
British Gas	Kevin Woollard
EDF Energy	Bob Gibbs
ENA	Paul Smith
Engage-consulting (ERA)	Simon Harrison
Eon-UK	Mark Roberts
ESTA	Tony Taylor
Gemserv	Anthony Campion
Intellect UK	Simon Higgins
RWE Npower	Bob Dryden
SBGI	Duncan Southgate
Scottish Power	Graham Smith
SSE	Andrew Monks
Utilita	Phil Kettless

## 2. Apologies

2.1. SMDSG3 members:

Consumer Focus	
First Utility	
Good Energy	
ICoSS	
Ofcom	

## 3. Introductions

3.1. Round table introduction of each SMDSG3 member.

## 4. Review of previous actions

<p><b>Flood alerts using teleswitch service – Follow up issue with network companies / DEFRA</b></p>	<p><b>Completed. (Paul Smith ERA) DEFRA do use the RTS signal for flood management but to PS knowledge (and to that of other staff in the ENA) there</b></p>
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	<b>are no other non- industry groups using the signal at this time.</b>
<b>Options for inaccessible / hard to reach site locations (flats)</b>	<b>Will go forward to the HAN Workshop 19 Nov.</b>
<b>Amend the "Variants Analysis" table column H to include prevalence and usage of the variant meters (twin-elements and 3-phase as well as a 2A auxiliary switch) to include no. of switches and whether internal or external switches.</b>	<b>Ofgem. Completed. SG3 to provide feedback on column H.</b>
<b>Produce an analysis of the 'do nothing' option for the provision of load management functionality in SMs.</b>	<b>ENA with BEAMA (JP) &amp; SBGI (CA) to circulate the analysis - Completed</b>
<b>To provide data for an additional column on Pulse Availability in Non Domestic Metering for Appendix A of the SG3 Deliverable 1 paper</b>	<b>ICoSS (SM) - Completed</b>
<b>To provide an analysis of the potential error in Appendix A of the SG3 Deliverable 1 paper</b>	<b>SSE (AM) – Completed</b>
<b>To add to Appendix B Table 3 of the SG3 Deliverable 1 paper:</b>  <b>-how the 'top 6' issues were distilled from an original top 8</b>  <b>-the SG's proposals to deal with the remainder (44) issues of the full '50 list'.</b>	<b>Ofgem – Completed</b>
<b>To re-examine the remainder (44) issues of the full '50 list' and decide if any further actions, not covered in the deliverable paper, are required to address any or all of these issues.</b>	<b>All SG3 – Completed</b>
<b>To amend the SG3 deliverable 1 paper v2 with comments from SG3 meeting 5 and redistribute to SG3.</b>	<b>Ofgem - Completed</b>
<b>To distribute a paper to SG3 on proposals for HAN trial(s).</b>	<b>ERA (SH) - Completed</b>
<b>To distribute to SG3 a paper on HAN Use Cases</b>	<b>Ofgem – Completed</b>

<b>and requirements from SG1.</b>	
<b>To add AOB to next SMDG – ‘Funding for trials’.</b>	<b>Ofgem – Feedback in meeting - Completed</b>
<b>Collect and collate membership views on the variant meters (twin-elements and 3-phase as well as a 2A auxiliary switch) and report back to SG3.</b>	<b>ERA. This is an action for ERA members, though Scottish Power gave some approximations for SP and ManWeb – Feed any data to options paper</b>

### 5. Feedback from SMDG

- 5.1. SMDG have reviewed the SG3 deliverable. Ofgem conveyed SMDG’s views back to the group. SMDG feels specific options papers are needed on highlighted issues and any outstanding ones if appropriate owners propose – See annex A. These issues were discussed by the group and where comments were proposed they will be amended in the deliverable.
- 5.2. The group then discussed the SMDSG3 prioritised technical issues table. Some issues have been highlighted for change so amendments were discussed and made live in the meeting. The group was asked if the issue had been picked up in the deliverable paper; whether it needed to be passed to any of the other sub groups; or if it needed an options paper to be drafted.
- 5.3. The group discussed the technical issues highlighted in the SMDSG3 deliverable. Each issue was discussed and the group decided which should be turned into options papers – See annex A.

### 6. Deliverable 2: areas for literature review, research, tests and pilot trials

- 6.1. The group wanted to understand which parts of the SMS does actually need trials and how would they be tested.
- 6.2. Each member producing an options paper will be asked to include thoughts on pilot trials, testing or data gathering. A few examples were discussed in the meeting and can be found in Annex B for options paper owners’ information.
- 6.3. A template for these papers has been produced and circulated separately. These papers are to be brief and succinct.

### 7. Review of actions from meeting today

- 7.1. Actions carried forward.

<b>Confirm if LPG / oil meters are in scope?</b>	<b>Ofgem have passed to their Markets section to provide a statement – No further news</b>
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<b>Discuss with BRE what can be done regarding housing design standards and their impact on SMS</b>	<b>Ofgem. Work started but ongoing – No further news</b>
<b>Check prevalence and remedial costs associated with semi concealed installations due to risk of water damage (e.g. top hat solutions)</b>	<b>Not complete. OnStream (BB) to send round by next meeting.</b>
<b>Locate and distribute to SG3 any previous Ofgem data on the prevalence of variant meters (twin-elements and 3-phase as well as a 2A auxiliary switch).</b>	<b>Ofgem. No data located within Ofgem as yet – No further news</b>
<b>Raise with SG2 issue of: 'If both HAN &amp; Wan fail and there is no access to the meter – would an engineer be sent on H&amp;S grounds?'</b>	<b>Ofgem. To raise at SG2 meeting – 16<sup>th</sup> Nov.</b>
<b>Raise with SG2 the issue of: 'In the case of meter battery failure, should the supply be disabled? I.e. who controls the off-switch?'</b>	<b>Ofgem. To raise at SG2 meeting – 16<sup>th</sup> Nov.</b>
<b>Provide to Ofgem any good examples of SM solutions for multi-occupancy buildings.</b>	<b>All SG3. No responses so far. SBGI offered wired MBUS as one solution.</b>
<b>To share with SG3 Siemen's experience with HANs.</b>	<b>SBGI (CA) – 29<sup>th</sup> Nov</b>
<b>To solicit other Expert and Sub-Group views on what SMS technology trials they might like to see and report back to SG3.</b>	<b>Ofgem – 29<sup>th</sup> Nov</b>
<b>Raise with DECC the ENA's previous correspondence to DECC on the SM 'Vision' - seeking a DECC response.</b>	<b>Ofgem – 29<sup>th</sup> Nov – No further news</b>

## 7.2. New actions

<b>Action</b>	<b>By</b>	<b>When</b>
<b>Circulate BRE workshop (30<sup>th</sup> November) details and feedback to the group</b>	<b>ERA</b>	<b>Details circulated – Feedback on 6<sup>th</sup> December (Meeting 8)</b>

<b>Group to suggest questions that ERA can take to the BRE workshop</b>	<b>All SG3</b>	<b>Before 30<sup>th</sup> November</b>
<b>Pass over the difficult to reach issue (policy on the % that are likely to be difficult or not viable to reach) to DCG to consider and feedback</b>	<b>Ofgem</b>	<b>29<sup>th</sup> November (meeting 7)</b>
<b>Confirm a list of papers which have been written previously that have informed SG3 debate for inclusion in updated SMDG paper</b>	<b>All SG3</b>	<b>29<sup>th</sup> November</b>
<b>Raise specific technical issues with the relevant SMDG sub groups</b>	<b>Ofgem</b>	<b>16<sup>th</sup> and 17<sup>th</sup> November</b>
<b>To draft an options paper on the different issues stated below in the table attached highlighting any issues that may not be closed off</b>	<b>All SG3</b>	<b>29<sup>th</sup> November</b>
<b>Circulate contact on EMF to Ofgem</b>	<b>ENA</b>	<b>17<sup>th</sup> November</b>
<b>Amend and circulate prioritised technical issues list</b>	<b>Ofgem</b>	<b>18<sup>th</sup> November</b>
<b>Circulate an option paper template</b>	<b>Ofgem</b>	<b>18<sup>th</sup> November</b>

## 8. Risks and issues

8.1. There were a few issues captured during the technical issues exercise that will need to be raised with the other sub groups.

## 9. Any other business

9.1. The following issue was raised with the group from SMDSG2. SMDSG2 wanted to know if there are any Technical issues related to the installation of a smart meter to a premise where a pre-mandated smart meter was installed.

9.2. The group proposed that interoperability would be the main issue. It would have to involve communication between the suppliers to try and resolve the issue. The meter should therefore be regarded as dumb.

9.3. It was also considered by the group that it may be more of a marketing / consumer perception issue. This should therefore be referred to sub group 2 to consider.

- 9.4. The group's final thoughts intimated that all meters that have not been approved by the relevant Smart metering test houses / approval criteria should not be considered Smart.
- 9.5. HAN workshop – Ofgem wanted to make sure that everyone in the group is aware of the workshop on Friday and that organisations have confirmed their attendees.
- 9.6. Double pole switching – A letter has been submitted to Ofgem from ESC on double pole switching. Ofgem will be looking for more information to be provided on this issue for it to be taken forward.
- 9.7. Non domestic and any other non mainstream issues – Nothing was raised.

## **10. Review of meeting**

- 10.1. It was suggested that the next meeting will involve a lot of options papers. These papers will have to be short and may have to be considered in about 15 minutes to make sure that all are covered. The group must make sure that they come prepared to present and discuss succinctly.

## **11. Date of next meeting**

- 11.1. Monday 29<sup>th</sup> November 2010 – 10:00-16:00, Ofgem , 9 Millbank, SW1P 3GE

**Annex A – Options papers owners**

<b>What</b>	<b>Option or briefing</b>	<b>Owner</b>	<b>Second</b>	<b>Deadline</b>
Provide clarity on the availability of solutions for blocks of flats and other difficult property types. For example through continued work by SG3 or by an options paper setting out the potential solutions to raise confidence within the programme that this issue can be addressed (next steps with Sub Group 3)	option	BEAMA	SBGI	29-Nov
Define meter variants - to support both legacy and future potential variants- in the functional requirements (next steps with Sub Group 3)	option	SSE	BEAMA; SBGI	29-Nov
Define minimum functional requirements for a simple local interface at the smart meter (e.g. 2 buttons) (next steps with Sub Group 3)	option	SP	ERA	29-Nov
Prepare a paper on standard operating profiles and gas meter battery life (next steps with Sub Group 3)	option	ERA	SBGI	29-Nov
Clarify requirements for generation meter interfaces (next steps with Sub Group 3)	option	Npower	Gemserv	29-Nov
Separate WAN device (within or outside module) (issues 1 & 2)	option	BG	ERA; BEAMA; Intellect	29-Nov
Size of meter (issue 28)	option	BEAMA	Eon	29-Nov
FMEA/ fault tree and related issues (issue 15, 16, 44 & 45)	option			Deferred pending further information
Terminals and tails - electricity (issue 25)	option	Utilita	EDF	29-Nov
Fittings - gas (issue 25)	option	SBGI		29-Nov
Semiconcealed boxes (issue 26)	option	SBGI		
Prepay and micro gen (issue 34)	briefing	Npower	Gemserv	29-Nov
Gas thermal calcs (issue 54)	briefing	SBGI		29-Nov

## Annex B – Working discussion indicative for option paper owners

Technical function or process	What to test/ trial?	Why? (e.g. Prevalence of the issue)	What to test against?	How might it be done?	What's done now?	challenges in making this test/ trial	When would it be needed?	Who should be involved?	Indicative costs
HAN issue - prevalence of propagation issues	see ERA paper on tests and uses cases; see also HAN workshop								
HAN issue - prevalence of propagation issues	signal power/ distribution/ spectrum for a device	To determine if modules meet the spec	Tech spec for signal strength/ power etc. Probably from the statistics on the building types	Use a research lab with relevant expertise (e.g. Sheffield)					
HAN issue - prevalence of propagation issues	mix of building types			Statistics on the mix; tech mock-up; visits		big scale of project			
Variants - prevalence	legacy mix	so know best way to provide solution		ask the manufacturers how many are made; review meter change programme data standard settlement code for each big 6 supplier (count of meters on the tariff) - consider combining with Meter Time Switch code run reports from databases for meter type visit every home	nothing	regional variety small number of manufacturers of teleswitch can identify which exist but not if they are actively switching range of meters (RTS, 5 terminal)			
variants	how many sites are unlikely to have seamless continuity	DCC works and enables load switching regardless of RTS  need to make sure demise of RTS doesn't kill load switching; maintains a time based regime then returns to economy 7 mode (could result in short term outages)  to reduce the number of meter variants the manufacturers need	define a subset of solutions exists (see BEMA example which includes a HAN operated switch)	cost modelling of variants/ test cost assumptions; business case					
variants - pulse	none - assuming derogation allowed								
variants - current transforming	none - assuming derogation allowed								
variants - switching	How to achieve randomisation	go beyond existing specs to allow greater randomisation for localised load management			by signal code and by device; switch synchronisation and rate is set regional allocation; generated in the meter - programmed in the meter/ preset in the factory; suppliers can also change (and mechanical clocks)	needs a spec (which could be done by convert from existing specs)  tariffing or firmware issue not a tech spec			
loading tariffs	How the tariff is loaded across the network								