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1 Introduction

- 1.1 Each attendee advised the industry group / trade association etc that they were presenting.
- 1.2 Talked through the draft agenda that was issued with the meeting invite.

2 Review of the first SAPIF meeting held 27 June 2018

- 2.1 Actions reviewed in summary.
 - 2.1.1 Paragraph 1.9: RDL confirmed all documentation sent to SAPIF members
 - 2.1.2 Paragraph 2.6: RDL noted that deadline for comments was end of July 2018
 - 2.1.3 Paragraph 3.6: RDL noted that this would be picked up in the meeting today

3 Matter arising

- 3.1 Used this agenda item for Will Griffiths (Head of new technology recognition) to explain the Appendix Q purpose and process.

4 Appendix Q

- 4.1 Will Griffiths explained the Appendix Q purpose and process.
- 4.2 **ACTION:** BRE to forward Appendix Q Flowchart to all SAPIF members and attendees.
- 4.3 **TRL” (Technology Readiness Level)**
 - 4.3.1 WillIG advised “TRL” was developed by NASA, but has since been adopted more widely.
 - 4.3.2 **ACTION:** WillIG to include definition or link to definitions in the Appendix Q Flowchart
- 4.4 **Standards**
 - 4.4.1 WillIG explained that in some situations:
 - (1) BRE will need to develop a Test method and criteria;
 - (2) In rare situations a Test may not be required;
 - (3) ‘Field trial’ may be required (which he noted industry generally dislikes). This could be via a lab or physically on-site, depending on the nature of the technology.
 - 4.4.2 Brexit: WillIG advised, there is no threat to the use of current standards.
- 4.5 **Sample size**
 - 4.5.1 WillIG advised that where ‘Further evidence’ was required, this varied according to the circumstances and could vary from 1 house to 1,000 houses.
 - 4.5.2 John Tebbit, by way of an explanation, indicated that RDL used 30 samples as the quantity to evaluate performance – this being deemed appropriate for a relatively simple situation and hence indicating that other technologies may require a larger sample.
 - 4.5.3 **ACTION:** WillIG to outline the sampling criteria.
- 4.6 **End-to-end duration of the process**
 - 4.6.1 WillIG explained this was variable dependent upon the technology and current knowledge. For example, ranging from 6 months to 3 years.
 - 4.6.2 In response to a question, WillIG advised BRE receives approx. 1 application per year.

4.7 Linking the PCDB to other databases

- 4.7.1 A SAPIF member asked about the use and linking of other databases within the PCDB to improve the process. It was noted in discussions that this would need resourcing and also care would need to be taken to ensure any data in the PCDB from external databases was kept up to date.

4.8 Dynamic performance

- 4.8.1 Discussed, using the example of glazing changing properties to reflect sunlight and hence internal room temperature.
- 4.8.2 John Henderson suggested these products / systems could be evaluated via a 'Field-trial' and he expressed his interest in this.
- 4.8.3 It was noted that averaging performance was not accurate. However, SAP uses average data and is not at present a dynamic model.

4.9 Improving industry understanding

- 4.9.1 Discussing this during the meeting was one way of assisting industry with an improved understanding of the Appendix Q process.
- 4.9.2 John Tebbit indicated that RDL as the Lot 4 contractor for the SAP Contract (administered by BEIS as the owner of SAP), was endeavouring to support BRE and BEIS in clarifying the logic process that underpins the assessment of new technologies by BRE. It was noted that the Appendix Q process has been published online for many years; however, some in industry felt that there had been a lack of transparency and detail about the process.

4.10 Default value

- 4.10.1 In response to a question, John Henderson said that default values were not ideal, although occasionally necessary.

4.11 Thermal bridging

- 4.11.1 In response to a question, John Henderson advised that Psi-values provided by other Certification Bodies could potentially be recognised in the Product Characteristics Database (PCDB).

5 Update from BEIS

- 5.1 Nick Dunkeyson advised he was working on 'The Buildings Mission' and advised the key aim was:
- (1) 50% energy reduction (excludes recharging electric vehicles)
 - (2) 50% reduction in the costs to achieve 2030 standards to existing homes.

See Appendix One for slide used during the first SAPIF meeting.

- 5.2 NickD advised:

- (1) BEIS had not yet determined how best to measure progress to achieving all the aims. Options under consideration included using Building Regulations, EPCs etc.
- (2) BEIS were looking to smart technologies to assist energy management, including, enabling flexibility (for instance, shifting energy use from peak times);
- (3) Potential contributions from SAP include using scores to drive consumer demand, and in enabling uptake of innovative products where appropriate.

- 5.3 Tom Ritchings and Philippa Hulme (both in the BEIS' Smart Energy team) advised that 'Demand Shifting' (moving demand to different parts of the day) and smart technologies has the potential for significant cost savings across the energy system and for consumers and are keen that this be recognised in future iterations of SAP.

- 5.4 It was suggested (by a SAPIF member) there was a need to distinguish how occupiers use their homes and the performance of the home itself (based upon a prescribed usage pattern).

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6 Industry-led Workstreams

6.1 Introduction and overview

- 6.1.1 John Tebbit introduced and explained that the topics were mainly sourced from the first SAPIF meeting and feedback received.
- 6.1.2 The draft agenda issued with the meeting invites was used as a guide.
- 6.1.3 Tom Ritchings asked that 'Vehicle-to-home' charging be included in the Workstream groups and the group agreed that it could fall into the 'Home Energy storage' group, but will likely also be relevant for the 'Smart controls, technologies and tariffs' group.
- 6.1.4 A SAPIF member asked for assurance that 'what-was-built' matched the design.
- 6.1.5 **ACTION: RDL / BRE to discuss with BEIS the topic of how ensuring 'what-was-built' matched the design.**
- 6.1.6 It was stressed:
- (1) Overlap between one Workstream and another would occur and therefore, cross-Workstream communication was required;
 - (2) Need to consider the knock-on effect on other aspects of a dwelling (used the example of LED versus incandescent lighting);
 - (3) Report back via each Workstream group;
 - (4) Contact RDL / BRE for guidance if unsure if a particular aspect was within a Workstream;
 - (5) Must not be judgemental on technologies or products, as it was for each Workstream to submit information on all the options and for Government to decide;
 - (6) Not everything each Workstream group suggests will necessarily make it into SAP 11.
 - (7) To be explicit on what they were doing and what they were not doing;
 - (8) To consider the range / scope of dwellings, from very small to very large.
 - (9) 'Smart' and the sub-categories of 'Smart' required defining. The group also discussed, for the purposes of the groups, potentially avoiding the term 'smart' except as an umbrella term, and instead focusing on specific features
 - (10) Timescale was spring 2020 for each Workstream final report;
 - (11) Neither BRE nor RDL have any budget for assisting / funding.
 - (12) SAP is a model of reality and not a product recognition scheme.
- 6.1.7 **ACTION: Workstream members to engage colleagues etc.**
- 6.1.8 **ACTION: Members to share contacts where they know colleagues etc are working on / knowledgeable in other topics.**
- 6.1.9 Agreed OK to share all contract details (email + phone).
- 6.1.10 John Tebbit advised a whistle-blowing route was available via Robust Details Ltd (RDL).
- 6.1.11 **ACTION: RDL / BRE in conjunction with BEIS and MHCLG to draft the Terms of Reference for each Workstream.**
- 6.1.12 At the next SAPIF meeting (anticipated early spring 2019) each Workstream lead(s) to present a short summary.
- 6.1.13 Agreed members and contact details to be issued separately from each Workstream's Terms of Reference.

6.2 Domestic Hot Water

- 6.2.1 Co-Workstream leads: Steven Sutton (HHIC) and Jeff House (Building Alliance).
- 6.2.2 The amount of hot water consumed was not in scope.
- 6.2.3 Heat recovery was in scope.
- 6.2.4 Les Woolner (BEAMA representative) stated that BEAMA contribution would be focused on electricity as the heating medium.

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6.3 Smart controls, technologies and tariffs

- 6.3.1 Workstream lead: Colin Timmins (BEAMA).
- 6.3.2 Les Woolner (BEAMA representative) advised the classification work was well-on-its-way with a BEIS sponsored project.
- 6.3.3 **ACTION:** Workstream team to define 'Smart' and the sub-categories of 'Smart'.

6.4 Home energy storage (heat and electricity)

- 6.4.1 Co-Workstream lead: Gill Kelleher (SPECIFC) and Hanae Chauvaud de Rochefort. It was noted that hot water storage would probably be better dealt with by the Domestic Hot Water Workgroup.
- 6.4.2 **ACTION:** RDL to ask Gill Kelleher' if she would be a co-Workstream Lead.

6.5 Overheating including prevention and cooling

- 6.5.1 Co-Workstream lead: Dave Bush (BBSA) and Phil Brown (GGF).
- 6.5.2 Matthew Hurd (HBF) to be a team member.
- 6.5.3 Useful if MHCLG attend the first and perhaps second Workstream meeting in order to give steer.
- 6.5.4 Noted had a strong chance of overlap with Indoor Air Quality and ventilation.

6.6 Indoor Air Quality and ventilation

- 6.6.1 Co-Workstream lead: Nick Howlett (FETA) and Adrian Regueira-Lopez (BEAMA).
- 6.6.2 Phillip West / Phil West to be a team member.
- 6.6.3 Noted standards are changing.
- 6.6.4 Noted that some work has very recently been conducted.

6.7 Building compliance

- 6.7.1 RDL advised that given the work going on in this area post Grenfell, a link would be sought to the work rather than setting up a new SAPIF group.
- 6.7.2 **ACTION:** RDL to approach the Building Control Alliance for a suitable link and liaison.
- 6.7.3 Inputs include: The Hackett Report, Building Control, Competency of SAP Assessors.

6.8 Digital construction

- 6.8.1 RDL suggested that as with Building Compliance, significant work is going on elsewhere and links to such work was more useful than setting up a new group.
- 6.8.2 Jeff House (Building Alliance) advised that he is involved via CIBSE.
- 6.8.3 Stuart Fairlie (PEPA) advised that via PEPA they were linked to the software providers and would advise SAPIF on relevant work.
- 6.8.4 BEAMA is also involved in product BIM work, as were most other sectors.

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Appendix One


Slide from SAPIF Meeting 1 on Building Mission

The Buildings Mission –

At least halve the energy use of new buildings by 2030

On 21st May, the Prime Minister announced this ambitious mission as part of our 'Clean Growth Grand Challenge'. This will be achieved by:

- making sure every new building in Britain is safe, high quality, much more efficient and uses **clean heating**
- innovating to make low energy, low carbon buildings cheaper to build
- driving lower carbon, lower cost and higher quality construction through innovative techniques
- giving consumers more control over how they use energy through smart technologies
- halving the cost of renovating existing buildings to a similar standard as new buildings, while increasing quality and safety



Appendix Two

Adrian Regueira-Lopez - BEAMA
Andrew Chalk - BBSA
Bean Beanland - Ground Source Heat Pump Association
Colin Timmins - BEAMA
Dave Bush (standing in for Andrew Chalk - BBSA)
David Kempster (standing in for Simon May) – Smart controls
Gemma Stanley - Solar Trades Association
Graham Hazell - Heat Pump Association
Gill Kelleher - SPECIFIC
Hanae Chauvaud de Rochefort - Association for Decentralised Energy
James Russill - Energy Saving Trust
Jeff House – Building Alliance
Jonathan Ducker – Construction products Association (CPA) and Kingspan
Kirk Kirkland (standing in for Gemma Kirkland) - Solar Trades Association
Les Woolner - BEAMA
Martin Fulwell – Construction products Association (CPA) and Besblock
Martyn Griffiths – Domestic Hot Water storage systems / Hot Water Association
Matthew Hurd - HBF
Nick Howlett - FETA
Phil Brown - GGF
Phillip West - West Energy Saving Technologies Ltd
Sam Crichton - Sustainable Energy Association
Simon May – Smart controls
Steven Sutton - HHIC
Silvio Junges - AES Sustainability Consultants
Stuart Fairlie - PEPA

- End -