

Design Advisory Board – Meeting 3

Session 1 - Welcome & Introduction

1 Welcome & Overview and Administrative Matters

- The Ofgem Chair, Anna Stacey, (Chair) opened the Design Advisory Board (DAB) meeting and set out the day's objectives: reviewing the criteria for the Target Operating Model (TOM) design work, overview of skeleton TOMs and DWG assessment, DAB evaluation of skeleton TOMs, feedback on the Future-enabling the TOM working paper and the presentation from the Future Supply Markets Arrangements.
- The Chair emphasised the role of the DAB to the members; that the purpose of the DAB is to provide advice to the Ofgem Senior Responsible Owner (SRO) to assist in her decision on whether to approve the skeleton TOMs.
- The Chair updated the DAB on Ofgem's final organisational re-structure plans and confirmed that the Settlement Reform project would be in the Consumers & Markets Directorate, in the Retail System Transformation portfolio alongside Smart Metering and the Switching Programme.
- The DAB was informed of the proposed date for the next meeting, which is the 12th June.
- The Chair informed the group of the aims for the next Design Working Group (DWG) meetings and that the membership for the DWG would be reviewed for TOM work Stage 2.

2 Criteria for TOM design work – mapping Design Principles to DWG evaluation criteria

- George Huang (GH) reminded the group of the TOM strategic objectives to achieve efficient market-wide half-hourly settlement arrangements and outlined the key themes of efficiency, simplicity, competition, innovation, accuracy and timeliness.
- A DAB member raised the idea that we should have key performance indicators (KPIs) to assess the strategic objectives such as competition. The Ofgem Chair stated that this would be a good idea and would consider how it could be done in a future stage.
- GH gave a brief overview of how the DWG evaluation criteria maps to the Design Principles. Key comments and issues discussed by the DAB during this session were:
 - It was suggested that the DWG evaluation criteria/Design Principles documents should contain a clear definition on what Ofgem and ELEXON mean when referring to an 'energy service provider' and 'supplier', and clarifying the relationship they have with the BSC. 'Energy service provider' could have multiple meanings e.g. traders with a non-physical position.
 - The TOM must be able to accommodate the current energy system as well as be suitable for future use. Currently the system would have to work for suppliers under the BSC, whereas settlement in future may include other entities. In the future

- people may have a 'community energy supplier', or multiple suppliers. The TOM must be flexible enough to accommodate both. .
- There was further agreement that the TOM will need to meet the needs of future enhancements and shouldn't block any future business models.
 - The group discussed the strategic objective of promoting competition. Members stated it can be challenging to measure the level of competition within a market.
- GH asked the DAB if there are any underlying key themes of the TOM objectives (efficiency, simplicity, competition, innovation, accuracy and timeliness) which should be weighted more than others and whether this means that certain design principles or DWG evaluation criteria should be emphasised more than others. Comments received on this were:
 - The DAB agreed that all of the key themes are important and need to be covered in the TOM design. One DAB member considered that added weight should be given to the importance of accuracy because of the material financial impact of inaccuracy on suppliers and the use of validated settlement volumes outside of settlement (such as network charging). It was also recognised that accuracy of settlement was important for DNOs (such as to help verify if DSR has been undertaken by a customer).
 - Another key theme that the DAB thought was of high importance was timeliness as smaller suppliers have to wait 14 months for final settlement to find out what their financial risk is.
 - Ofgem asked the DAB for their views on the theme of simplicity. The group spoke about the current regulatory processes that new entrants have to navigate when entering the market. A DAB member queried the value of simpler settlement arrangements for new entrants, noting that they may contract out the back office work to create products for the consumer end. However, other DAB members considered that simplifying settlement arrangements was important, as new entrants may need to engage with settlement to fully extract the value of their products. Thus, it is important that innovators have the choice of whether or not to engage. ELEXON confirmed to the DAB that the TOM should make entry to market simpler as there will be less complicated settlement arrangements (such as Estimated Annual Consumption) to understand.
 - A DAB member added that 'costs' should also be a major underlying theme. Ofgem responded that consideration of costs sit under the theme efficiency. Additionally, it was noted that the costs of transitioning to a potential TOM will be considered as part of the Settlement Reform SCR.

3 Overview of skeleton TOMs

- GH provided an overview to the group of the approach to the design of the skeleton TOMs, noting how the TOMs divide the market into five segments, the DWG baseline design principles, an overview to the five skeleton TOMs and the feedback received from the previous DAB meeting. Regarding TOM E, Anna Stacey noted that whether settlement will be centralised or not is outside the scope of the DAB and will be decided by Ofgem separately.
- Key DAB comments and discussion points were:

- A DAB member noted that having the advanced meter market segment and the non-half-hourly (NHH) market segment in the TOMs may be more costly to consumers. ELEXON explained that it was previously agreed that even though the services for advanced and NHH segments are separate they can be provided by one organisation or service (provided Ofgem decides these services should be provided competitively and not centralised). Additionally, the advanced market segment will capture future metering technologies that may not fall within SMETS definitions.
 - The DAB noted that it is was not clear whether the 'advanced meter' market segment in the TOMs included the mandatory half-hourly (HH) market. It was clarified in the meeting that the market segment did include the mandatory HH market. The DAB considered that this should be made clear to stakeholders.
 - One DAB member considered that it needed to be clarified what data was being extracted from the meter for the purposes of settlement. Other DAB members also considered there would be value in doing this.
- GH highlighted to the DAB that the skeleton TOMs focused on retrieval, processing and aggregations services as those were identified as key activities. GH also provided an overview of other services included in the skeleton TOMs: metering services, registration service, unmetered supplies service, load shaping service and distribution losses service.
- Key DAB comments and discussion points were:
 - DAB members felt that a future registration service could be as simple as sensor which is read via an app. A DAB member commented that something similar had already been developed for Electric Vehicles (EVs) but not for settlement reform.
 - Fundamentally registration is no more than a code and there is no reason why a meter could not be made to store its own registration details. It was emphasized that the TOM could not alter the registration service as this was outside the scope of the SCR. However the DAB felt that the TOM should be as flexible as possible to work with currently unplanned but conceivable potential fundamental future changes to registration (e.g. to enable an app based registration service).
 - It was confirmed to the DAB that the list of services set out in the slides were the services identified by the DWG as required for the settlement process.
 - One of the key features to the TOMs is that 'there is a new load shaping service which will be responsible for cheap load shapes using market HH data'. There was clarification around the word 'cheap' to be understood as cheaper and simpler than the current load shaping service (known as profiling).

Session 2 ELEXON: DAB evaluation of skeleton TOMs

- ELEXON ran the group through the DWG's evaluation of the skeleton TOMs against the evaluation criteria that the DWG agreed to at the start of the design work.
- Key points and comments on the DWG evaluation were:

- The DAB wanted clarification on the current capability of SMETS1 meters to record export. SMETS1 meters have 50 registers in total. The majority of these registers are for recording import data (so it can have HH to accommodate different time of use (TOU)). There is only one register for export, which can record HH export. So despite only having one export register, a SMETS1 meter can still record 48 HH reads for export per day. It was noted by the group that the meter (on import) has to be able to store 13 months of HH data, and on export can hold 6 months of HH data. This is primarily to ensure that there is sufficient time for the HH data to be collected physically from the meter in the event that the communications fail.
 - The DAB suggested that 'customer billing interaction' in the 'coverage' criterion evaluation of the TOMs should have two ticks compared to the one tick awarded by the DWG because future consumers may allow access to data for billing purposes. It was also noted that if a customer wants to offer a network operator a DSR service they'll need to give access for billing data.
 - It was felt that the criterion of 'impact on small suppliers/new entrants' and 'supports new technologies and innovation' should both have only one tick compared to the two ticks awarded by the DWG .
 - A DAB member suggested creating a log for the dependencies that will affect the TOMs e.g. policy questions. The DAB members agreed that the ELEXON RAID log for the Design Working Group would be a good place to start.
 - The DAB thought it would be useful to clarify which services were within the scope of the SCR to be potentially amended under the TOM (such as load shaping service) and which are not (such as distribution losses service).
- Key points and comments on the TOM models provided were:
 - The DAB were happy with the range of skeleton TOM options and did not consider there was another fundamental different TOM option which should be explored.
 - Most of the DAB preferred TOMs A and D, but noted there wasn't much distinction at this stage between all the skeleton TOMs as they all describe the same meter to bank settlement process. A DAB member commented that TOM D was better because it had the most scope to create niches for players, however other DAB members felt that many of these services were back office functions and felt that the individual services may not be commercially viable. The DAB agreed that all TOMs are not likely to restrict future innovation.
 - Several DAB members noted that the settlement systems should also consider collecting additional data that is not needed for settlement but is necessary for other users (such as network charging).
 - The DAB noted that there should be no material differences in the end settlement outcome whether a customer was in the smart segment compared to the advanced. It was also noted that some low end advanced segment customers may be more appropriately treated in the smart segment, given their metering arrangements are not complex and services for them would be more similar to smart segment services than high-end advanced meters.
 - A few DAB members expressed the view that it would not be appropriate for suppliers or agents to be the ones creating load shapes. The DAB also discussed that

- the load shaping service could result in unintended consequences for non-half-hourly settled customers.
- The DAB raised concerns over cybersecurity and the whether smart meter data could be inaccurate due to the hacking into smart meters. A DAB member suggested the need for the quality of data to be reviewed externally to guard against this. The DAB were reminded that security will be looked into during stage 2 of the TOM design work.
 - There was a discussion around whether the TOMs supported innovation. One DAB member noted that the main barriers to innovation were outside settlement arrangements. An alternate member noted that the best support for innovators would be for there to be one source of the truth for HH data and have a platform with this data that is cheap to access. In this regard, they found the idea of a single market-wide aggregator database store appealing.¹ Some DAB members felt that that having more people in the settlement system would create barriers as that would lead to more percentage cuts being taken. It was also suggested that providing processing and aggregation services may not be appealing as those parts of the business would need to be ring fenced from other parts of the business.
 - The DAB agreed that it needs to be explained at what points of the settlement system innovators and other users of HH data will be able to access it (provided they have consent).
 - It was agreed that there would be an update on export settlement from BEIS at the next meeting, so the DAB can understand where export and Feed in Tariff policy sits on the dependencies.
 - ELEXON agreed to send the DAB the analysis they have previously done on estimating the spill in the network from unmetered microgeneration.
- ELEXON updated the DAB on the feedback from the ELEXON settlement stakeholder event and presented the current areas they plan to consult on. DAB members wanted the TOM consultation document to include a question on innovation and security. The DAB agreed to send through any further feedback to Ofgem/ELEXON on ideas on ELEXON's consultation questions.

2 Future enabling the TOM

- GH ran through a draft of the “future enabling the TOM” paper which was put together further to suggestions made at previous DAB meetings. One DAB member noted that the section on EVs needed to be updated. It was noted that Ofgem’s “future enabling the TOM” paper was due to be published at a similar time to the ELEXON consultation. Any further comments from the DAB are to be sent through to Ofgem.
- The DAB discussed that the current models are very high level. In many cases, it will be the detailed implementation of the models which will constrain future innovations, so the next,

¹ Please note that a single market-wide aggregator is dependent on an Ofgem policy decision on whether or not to centralise supplier agent functions which is being considered by Ofgem separate to the TOM design work.

more detailed pages of design, and the subsequent implementation of any chosen model, is critical.

3 Presentation from the Future Supply Markets Arrangements

- The Ofgem Supplier Hub team updated the DAB on the future supply markets project.
- Key points and comments from the DAB were:
 - The DAB noted that Ofgem's review of the supplier hub model is considering whether current market design needs to change to remain fit for purpose. Ofgem noted that this work will explore reforms that enable more innovation and competition in the retail market, while ensuring that consumers are protected from risks and receive good services, regardless of whether they engage in the market or not
 - A DAB member noted that currently there is only the option to do peer to peer trading is if the customer and producer have the same supplier. To work around this issue, it noted that if you own an asset it needs to be documented. There currently isn't any register of assets so the TOM will need to incorporate infrastructure for that.
 - The DAB discussed the settlement system matching inputs and outputs and allocating the costs in each HH. The DAB considered that everyone who is creating costs in the system should see that settlement matches transparently, presumably through the settlement system. If an aggregator or a peer to peer has put a supplier out of balance, parties will need to know so they can take account of it.
 - The discussion moved onto the different services within the current supplier hub model. It was noted by a member that some parties could take on the 'boring roles' of a typical energy supplier e.g. understanding the codes, putting meters on the wall and ensuring they're safe and looking after vulnerable customers. Other parties would be more interested in the 'fun roles' such as trading energy. Even though some roles are less desirable, they are fundamental to system operation and a party will take on the responsibility and charge for that less desirable service.
 - A DAB member noted that currently suppliers are the only parties with the ability to manage flexibility. If consumers did not receive appropriate incentives or receive price signals from the parties providing them energy, they may not have any reason to improve their energy efficiency. The settlement system is needed to ensure customers, via their energy provider, pay the costs they impose. Without this, costs end up on consumers who don't engage. Another member noted that local markets need to bring suppliers and distributors together to help ensure the system operates optimally and efficiently.

Actions and Next Steps

Actions agreed by the DAB:

- a. DAB to send through any further feedback to Ofgem/ELEXON on ideas on ELEXON's TOM consultation questions
- b. DAB to send through any further comments on the future enabling the TOM working paper to Ofgem
- c. BEIS to organise presentation for next DAB meeting on settlement of export

Following the third DAB meeting, the next steps are:

- a. Ofgem/ELEXON to clarify the meaning of 'energy supplier' and 'energy service provider'
- b. Ofgem to clarify what we mean by 'advanced' in 'traditional advanced meters with settlement period data available', slide 18
- c. Ofgem to create a risk log of the TOM dependencies and circulate to DAB members for comments
- d. ELEXON to circulate ELEXON's document on the estimated export spill
- e. Ofgem to review the supplier hub model and see what HH features are included in it and then circulate to the DAB for comments
- f. Ofgem to clarify what data is being extracted from the meter for the purposes of settlement
- g. Ofgem to consider KPIs to assess TOM strategic objectives

Attendees

Anna Stacey – Ofgem (Chair)

Cathryn Scott – Ofgem (Senior Responsible Owner)

Justin Andrews – ELEXON (Design Working Group Chair)

George Huang – Ofgem

Kate Mogg – Ofgem

Chris Allanson – Energy Networks Association

Sara Bell – Tempus Energy (morning session only)

Paul Massara – Electron (who attended as Sara's alternate in the afternoon)

David Crossman – Cornwall Energy

Mitch Donnelly – British Gas

Will Broad – BEIS

Chris King – Siemens

Graham Oakes – Upside Energy

Catherine Mitchell – Exeter University

Judith Ward – Sustainability First

Stew Horne – Citizen's Advice