

Appendix 2

We are seeking your feedback on the proposed governance model, following delivery of the Design Working Group (DWG) Preferred TOM and Transition Approach report. This includes seeking feedback on the Terms of Reference for two new groups created to develop the TOM design further. These are the Code Change and Development Group, and the Architecture Working Group. For these new groups, we have created a new set of Target Operating Model Development Principles. We have also updated the Design Advisory Board Terms of Reference. We have not updated the Target Operating Model Design Principles, but these still apply. Please see our open letter for details on how to provide a response.

Appendix 2A: Proposed governance model following the delivery of the Preferred TOM

Summary

Following the delivery of the Design Working Group (DWG) Preferred Target Operating Model (TOM) and Transition Approach report¹ the development phase of the TOM work will begin. The development phase will build on the TOM design work carried out by the DWG. This further work is needed in order to continue the development of the TOM to achieve the SCR objective of developing and then (subject to a Business Case assessment) implementing an enduring process to enable Market-wide Half-Hourly Settlement (MHHS). To do this we have proposed the creation of two new TOM development groups; the Code Change and Development Group (CCDG), and the Architecture Working Group (AWG).

Upon delivery of the DWG Preferred TOM and Transition Approach Final Report, the DWG have now discharged their duties under the DWG Terms of Reference.² As a result, the DWG will be stood down. Ofgem would only request to re-open the DWG due to a significant change in design requested by the Ofgem Senior Responsible Owner (SRO). If the DWG were to be re-opened, we would revert to the governance arrangements set out in the SCR launch statement.³

¹ See Appendix 1

² <https://www.exelon.co.uk/documents/groups/dwg/dwg-terms-of-reference/>

³ If the DWG is to be reopened, a refresh of their TOR may be carried out at that time.

We propose to continue using the Design Advisory Board (DAB) to provide expert advice on recommendations from the CCDG and AWG and to formally expand the remit of the DAB to include providing expert advice on areas of the project outside the TOM design, including the Business Case. This will sit alongside our wider stakeholder engagement, as we seek to acquire evidence from a wide range of sources.

Figure 1 shows the different phases of the TOM work and the associated working groups.

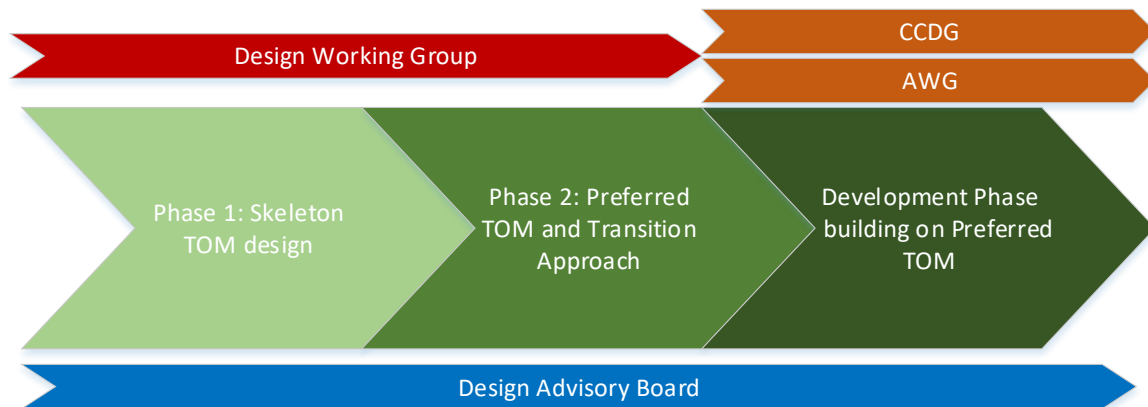


Figure 1: TOM Design phases and associated workgroups.

This document details the updated governance arrangements in place for the Target Operating Model (TOM) further development work. It provides guidance on decision-making within the TOM development phase and the roles of key governance groups in that process. The project operates under a governance framework of the Gas & Electricity Markets Authority (GEMA). GEMA has delegated decision-making authority for the project, pursuant to the general delegation, to the SRO. The original governance arrangements, which covered the development of the skeleton TOMs and design of the preferred TOM and the transition approach, can be found with the Electricity Settlement Reform Significant Code Review (SCR) launch statement.⁴

The governance structure is shown in **Figure 2** below. A full description of the roles in **Figure 2** are set out in section 3 of this Appendix.

⁴ <https://www.ofgem.gov.uk/publications-and-updates/electricity-settlement-reform-significant-code-review-launch-statement-revised-timetable-and-request-applications-membership-target-operating-model-design-working-group>

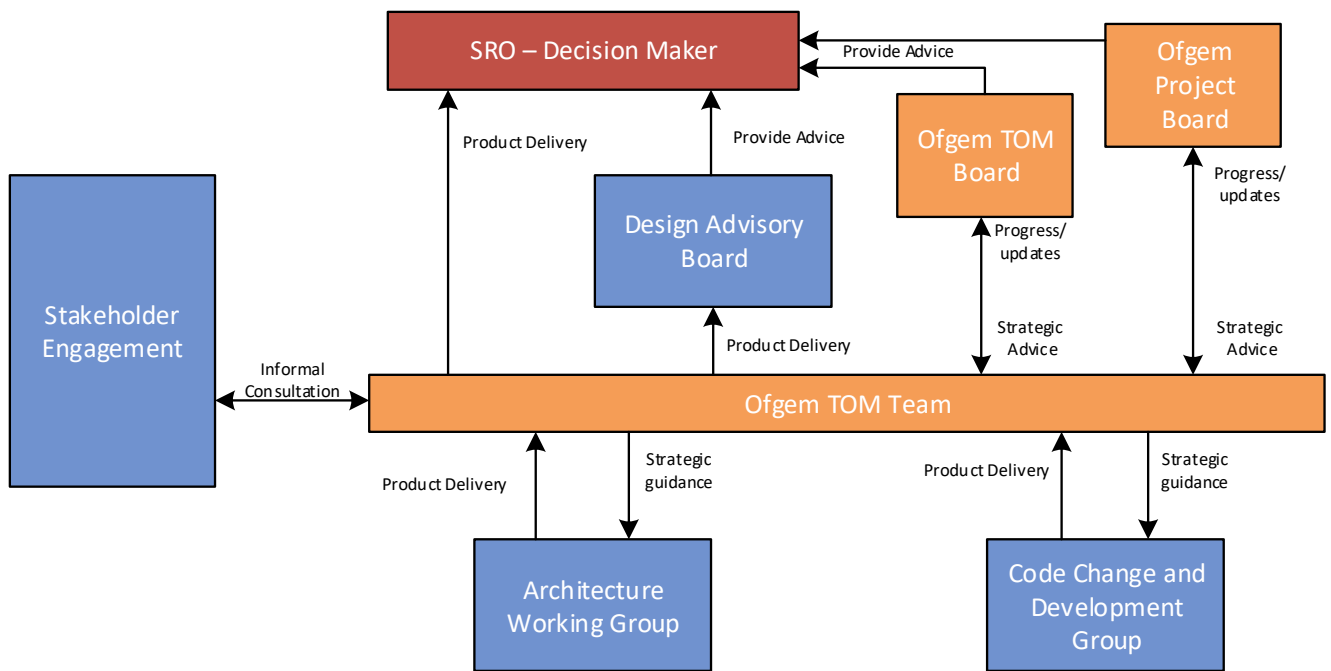


Figure 2: TOM Development Phase Governance

1. Decision-making

1.1 Within the day-to-day operation of the TOM development work there are three primary types of decision that can be made:

- TOM development recommendation
- Preliminary decision
- Final decision

1.2 We provide a description of each of these decision types below.

- TOM development recommendation: this includes all decisions made by the Code Change and Development Group (CCDG) and Architecture Working Group (AWG) on recommendations and options for the development of the TOM in line with the Terms of Reference for the CCDG and AWG respectively (see Appendices 2D and 2E). The CCDG and AWG will be chaired and facilitated by ELEXON. TOM development recommendations will be escalated by the Ofgem TOM team to the SRO for preliminary or final decision. TOM development recommendations will also be provided to the DAB, as required, and the Ofgem TOM Board to enable them to provide advice to the SRO.

A TOM development recommendation requires a consensus view of the members of the CCDG or AWG. Where agreement on a consensus view cannot be reached the Ofgem TOM Team may:

- agree to escalate the TOM development recommendation to the SRO for preliminary or final decision. The supporting information provided to the SRO by the CCDG or AWG will outline which members of the CCDG or AWG disagree with the option or recommendation and explain their reasoning; or
 - seek a preliminary decision from the SRO on how to proceed with the TOM development work on a particular issue.
- Preliminary decision: this includes all decisions made by the SRO to advance the TOM work before deciding upon the final TOM for Market-wide Half-Hourly Settlement. To assist the SRO, the Ofgem TOM Board and DAB (where required), will provide advice on the issues being considered for preliminary decision.
 - Final decision: this includes all decisions made by the SRO to finalise the TOM. To assist the SRO, the Ofgem TOM Board and DAB will provide advice on the issues under consideration for final decision.
- 1.3 The further development of the TOM, following the delivery of the DWG Preferred TOM and Transition Approach final report will be delegated to the CCDG and AWG as detailed in the CCDG and AWG Terms of Reference. Ultimately, the SRO is responsible for decision-making on the final TOM and the preliminary decisions before arriving at the final TOM.
- 1.4 Terms of Reference for the new supporting structures within the project are provided in Appendices 2D and 2E.

2. Product Delivery

- 2.1 There will be a core process for the CCDG and AWG to deliver TOM development recommendations to Ofgem. This is set out in the CCDG Terms of Reference in Appendix 2D, and AWG Terms of Reference in Appendix 2E.
- 2.2 The CCDG and AWG will make TOM development recommendations, for the appropriate decision areas outlined in their respective terms of reference. TOM development recommendations must be consistent with the development principles (see Appendix 2B). They must also be consistent with the TOM Design Principles (which includes the

TOM Strategic Objectives) and overall objectives of the MHHS project,⁵ both of which are set out in the SCR Launch Statement. A description of the key deliverables and indicative delivery timeframes are set out in the Terms of Reference in Appendices 2D and 2E. The Ofgem TOM Team will arrange for the relevant TOM development recommendations to be escalated to the SRO for decision. TOM development recommendations will also be provided to the DAB and Ofgem TOM Board to review and provide advice to the SRO for a decision, as appropriate.

3. Project governance structures

The governance structures in **Figure 1** are described below:

- **SRO**

GEMA has delegated their decision-making authority pursuant to the general delegation, and the SRO, or their delegate, will make the decisions in relation to the MHHS project. The SRO⁶ will receive strategic advice from the DAB (as required), Ofgem TOM Board and Ofgem Project Board.

Where the SRO, or their delegate, does not think it would be appropriate for them to take a decision, for example, due to the decision's potential impact on Ofgem's reputation or ability to conduct its functions, they may escalate the decision to Ofgem's senior management team or GEMA as required in order to resolve the issue.

- **Ofgem TOM Board**

The Ofgem TOM Board is responsible for reviewing the progress of TOM development work. The Ofgem TOM Board will also review options and recommendations produced by the CCDG, and AWG and will provide strategic advice and guidance to the SRO to inform decision-making. The Ofgem TOM Board will also be responsible for overcoming any issues escalated to them by the Ofgem TOM Team and will ensure the development work continues in a coordinated fashion with Ofgem policy decisions and other relevant, ongoing Ofgem projects.

The Ofgem TOM Board is comprised of members that also sit on the Ofgem Project Board which oversees the broader Settlement Reform work programme.

⁵ The project objectives can be found in the Strategic Outline Case for MHHS here: https://www.ofgem.gov.uk/system/files/docs/2018/02/market_wide_hhs_strategic_outline_case_february_2018.pdf

⁶ For the avoidance of doubt, where SRO decisions are referred to in this document, this would include any decisions that have been escalated or delegated by the SRO.

- **Ofgem Project Board**

The Ofgem Project Board oversees the Settlement Reform work programme, and provides strategic advice and guidance to the SRO to inform decision-making. This will include policy areas where the DAB are asked for their advice.

- **Ofgem TOM Team**

The Ofgem TOM Team provides support to the CCDG and AWG Chairs, Technical Secretariats, Technical Leads and the AWG Ofgem Technical Consultant and attends CCDG, and AWG meetings. The TOM Team will regularly update the Ofgem TOM Board on the work of the CCDG, and AWG. This team is responsible for engaging with members of the CCDG, and AWG and those not participating in the working groups through stakeholder engagement, such as bilateral meetings, workshops, teleconferences etc. The team will ensure development work remains focused on the TOM development principles (see Appendix 2B) and the TOM Design Principles and overall objectives of the MHHS project. The team will oversee the escalation of options and recommendations to the DAB and Ofgem TOM Board for advice, and to the SRO for a preliminary or final decision.

- **Design Advisory Board (DAB)**

The DAB will review TOM development recommendations from the CCDG, and AWG and provide forward-looking and strategic advice where required. The Technical Lead of the CCDG will be invited to attend meetings of the DAB when they are required to present TOM development recommendations that need the DAB input. The AWG Ofgem Technical Consultant will attend the DAB (as required) to provide rationale for, and explain the technical details behind TOM development recommendations. The DAB will provide advice from a broader industry and stakeholder perspective to assist the SRO on TOM recommendations.

The DAB will also provide expert advice to the SRO on broader Ofgem policy decisions relating to the Settlement Reform SCR, such as the impact assessment, Business Case, consumer impacts and access to half-hourly data for settlement purposes. This will sit alongside our wider stakeholder engagement, as we seek to acquire evidence from a wide range of sources.

The roles and responsibilities of the DAB have been refreshed since the delivery of the DWG preferred TOM and transition approach final report. These refreshed TOR's are set

out in Appendix 2C. The original DAB TOR's are detailed in the original governance arrangements that can be found with the Electricity Settlement Reform SCR launch statement.⁷

- **Code Change and Development Group (CCDG)**

The role of the CCDG is to deliver on the TOM development recommendations focusing on changes to the identified industry codes and subsidiary documents, and the detailed development of the TOM design as delivered by the DWG. The recommendations from the CCDG will be escalated, via the Ofgem TOM Team, to the SRO for decision as required. Final decision-making on the TOM rests with the SRO who will be provided with advice from the DAB and Ofgem TOM Board. The forward work programme will be developed by the CCDG, and approved by Ofgem. Relevant parties may also be invited to attend meetings on an ad-hoc basis to aid in the business of the CCDG and progression of any deliverables.

- **Architecture Working Group (AWG)**

The role of the AWG is to drive forward and deliver principles, options and recommendations relating to the system architecture changes required to implement the TOM as set out in its Terms of Reference (in Appendix 2E). TOM development recommendations in relation to architecture will be escalated, via the Ofgem TOM Team in consultation with the Ofgem Technical Consultant, to the SRO for decision. TOM development recommendations will be accompanied by supporting evidence and rationale. Final decision-making on the TOM rests with the SRO who will be provided with advice from the DAB and Ofgem TOM Board. The forward work programme will be developed by the AWG, and approved by Ofgem. Relevant parties may also be invited to attend meetings on an ad-hoc basis to aid in the business of the AWG and progression of any deliverables.

- **Ofgem stakeholder engagement**

The TOM work will require input from external stakeholders outside of the CCDG, AWG and DAB to ensure success. Ofgem will continue to maintain regular contact with external stakeholders throughout the duration of the remainder of the TOM work, to ensure that all interested parties are informed of progress and to provide the

⁷ <https://www.ofgem.gov.uk/publications-and-updates/electricity-settlement-reform-significant-code-review-launch-statement-revised-timetable-and-request-applications-membership-target-operating-model-design-working-group>

opportunity for wider stakeholder input.

Ofgem will regularly engage with stakeholders who have expressed interest in being informed on the progress of the TOM through a range of communication channels. These include stakeholder teleconference calls, workshops, providing regular newsletters and where requested, individual stakeholder meetings with the Ofgem TOM Team. This will also allow stakeholders to provide, where possible, support and resources to progress the TOM work through providing feedback to Ofgem on possible options for progressing the development phase of the TOM work and by raising issues and concerns.

Appendix 2B: Target Operating Model development principles

1. Purpose of the Development Principles

- 1.1. Following the delivery of the Design Working Group (DWG) Preferred Target Operating Model (TOM) and Transition Approach report⁸ the development phase of the TOM work will begin. The aim of the development phase is to build on the design structure we set out in the Settlement Reform Significant Code Review (SCR) Launch Statement.⁹ The TOM Design Principles¹⁰ still apply for the work that will be undertaken in the Development Phase by the Code Change and Development Group (CCDG), Architecture Working Group (AWG) and the Design Advisory Board (DAB).¹¹ These Development Principles are intended as a supplement to the Design Principles.
- 1.2. The Development Principles, set out below, provide guidance and direction to the two new TOM workgroups (CCDG and AWG) whose roles are to develop the Target Operating Model (TOM) to help realise reforms towards MHHS. Ofgem will also use these Development Principles to inform its decision-making when considering whether to accept or reject recommendations from the CCDG and AWG.
- 1.3. These Development Principles will ensure there are agreed criteria for delivering various processes within the settlement arrangements. They will provide transparency and clarity around achievable aims. This is important to the governance of the project to ensure there is clear and efficient decision-making.

2. Development Principles

Potential central database of Half-hourly data

- 2.1. The preferred TOM includes non-aggregated Half-hourly data from all Meter Point Administration Numbers entering central Balancing and Settlement Code (BSC)

⁸ See Appendix 1

⁹ The SCR Launch Statement can be found here on the Ofgem website:
<https://www.ofgem.gov.uk/publications-and-updates/electricity-settlement-reform-significant-code-review-launch-statement-revised-timetable-and-request-applications-membership-target-operating-model-design-working-group>

¹⁰ The TOM design principles can be found in Appendix 2F and on the Ofgem website:
https://www.ofgem.gov.uk/system/files/docs/2018/01/updated_target_operating_model_design_principles.pdf

¹¹ For the purposes of this document, Para 1.3 of the TOM Design Principles should be read to include reference to the CCDG and the AWG in addition to the DWG.

systems.¹² Consideration should be given to the potential future uses for this data, and ensure that the system design does not act as a barrier. As an example this may include facilitating third party access to the data, in compliance with General Data Protection Regulation, other relevant rules regarding access to data, including the Data Access and Privacy Framework,¹³ and the appropriate governance procedures. An example of the type of access could be for public policy uses.

- 2.2. Full consideration must also be given to the security requirements of such a database and the security standards any third parties accessing the data must abide by.

Data and communication standards

- 2.3. The data storage, transfer and communication specifications should be standardised across the new systems and interfaces, and these standards will be published. The design should consider whether the changes create barriers to innovation by new entrants or existing business models when providing the data services as described by the preferred TOM.
- 2.4. The standards should be specified with potential future system changes in mind and should be flexible to adapt to potential future requirements of the system (eg use of data for calculation of network charges). Market-wide Half-Hourly Settlement is an enabler to many future electricity system changes and full consideration to the potential future requirements should be given to the development.¹⁴ The recommendations set out by the Energy Data Taskforce should also be considered, as appropriate.¹⁵

Security standards

¹² NB: there was a DWG minority view on the preferred TOM that aggregation should continue to happen competitively outside of central settlement systems. Ofgem are yet to make the final decision on the TOM, including where aggregation should take place, and are currently gathering information through the RfI and IA. However, until such a time that we make a final decision, we wish the development of the TOM to be based on the DWG preferred TOM, unless otherwise requested by Ofgem.

¹³ The DAPF was established to complement (but not replace) existing data protection legislation by providing sector-specific provisions, that enable proportionate access to energy consumption data whilst ensuring that appropriate privacy safeguards are in place. The DAPF can be found here: <https://www.gov.uk/government/publications/smart-metering-implementation-programme-review-of-the-data-access-and-privacy-framework>

¹⁴ Ofgem has already done some work on this to date, and has published a working paper on future enabling the TOM for MHHS. It can be found here: <https://www.ofgem.gov.uk/publications-and-updates/future-enabling-target-operating-model-market-wide-settlement-reform>

¹⁵ The Energy Data Taskforce report can be found here: <https://es.catapult.org.uk/news/energy-data-taskforce-report/>

The system architecture and interface development should be carried out in accordance with Ofgem's Data & Security Principles¹⁶ and guidance for following NCSC Security Design principles.¹⁷

Use of data by the Load Shaping Service and other BSC services

- 2.5. The data in central systems should be stored and formatted as to not create a barrier to the data being utilised by the Load Shaping Service as described by the preferred TOM. The Load Shaping Service offers an opportunity for estimates of half hourly import and export to become significantly more accurate. The system architecture design should not be a barrier to many more accurate load shapes categories being created and used for settlement.
- 2.6. The data may also be utilised by other BSC services as appropriate. This may include Trading Disputes, Group Correction or Balancing Service Volume Allocation.¹⁸ The system design should consider whether the development is a barrier to these potential uses of the data.

Transition

- 2.7. Taking into account the DWG's transition approach and input from Ofgem's Impact Assessment, the TOM development recommendations will consider potential transition plans. This should consider the appropriate order of system changes and the appropriate time for integration testing. The interaction with, and timings of, other significant industry changes should be considered when considering potential transition plans and IT system changes.

Data Service Qualification

- 2.8. The TOM describes new data services that will retrieve, validate, process and submit data to central systems. Some of these will be performed outside of central settlement by third parties. The requirements placed on parties as part of the process of qualifying with the BSC to be able to provide these data services should be considered, especially in relation to secure handling of customer data.

¹⁶ Ofgem's Data and Security Principles are currently being developed and will include recommendations from the NCSC 14 Cloud Security principles (<https://www.ncsc.gov.uk/collection/cloud-security?curPage=/collection/cloud-security/implementing-the-cloud-security-principles>) and Protecting Bulk Personal Data (<https://www.ncsc.gov.uk/collection/protecting-bulk-personal-data>).

¹⁷ <https://www.ncsc.gov.uk/collection/cyber-security-design-principles/cyber-security-design-principles>

¹⁸ See ELEXON's website for a glossary of terms used: <https://www.elexon.co.uk/glossary/>

Whole settlement system considerations

- 2.9. When developing the recommendations, the impacts on the whole meter to bank process, including end consumers, should be identified and considered. The consideration of options should include identifying whether the design would create significantly increased complexity in systems outside the ones being developed.

Appendix 2C: Updated Design Advisory Board Terms of Reference¹⁹

This document sets out the Terms of Reference for the Design Advisory Board (DAB) following the delivery of the DWG preferred TOM and Transition Approach Final Report.²⁰ These Terms of Reference are to be used throughout the Target Operating Model (TOM) further development work for Market-wide Half-Hourly Settlement (MHHS).

1. Background

- 1.1. The objective of the MHHS project is to develop and then implement an enduring process for MHHS that delivers benefits for consumers by maximising the opportunities smart metering provides in enabling a smart, flexible energy system.
- 1.2. To achieve this objective, the TOM work will consider options and transition arrangements, and define comprehensive settlement arrangements. To assist Ofgem in arriving at a final TOM for MHHS:
 - a Design Working Group (DWG)²¹ delivered TOM options and design recommendations in August 2019;
 - a Code Change and Development Group (CCDG) will identify and recommend changes to the relevant Industry Codes²² and subsidiary documents required to implement the TOM and develop the design recommendations further following the final report submitted by the DWG; and
 - an Architecture Working Group (AWG) will deliver TOM development recommendations for the system architecture required to implement the TOM;

These recommendations will be presented to the SRO for preliminary or final decision.

- 1.3. The CCDG and AWG will be chaired by ELEXON and draw on the relevant technical industry expertise of their members. The CCDG and AWG will be the formal setting for the development of the TOM, focusing on the changes to the industry codes and the system architecture, and arrive at decisions on options to recommend to the SRO.

¹⁹ The original DAB ToR's can be found in the electricity settlement reform launch statement.

²⁰ See Appendix 1

²¹ For information, the DWG was stood down after the final report was delivered.

²² <https://www.ofgem.gov.uk/licences-industry-codes-and-standards/industry-codes>

1.4. The DAB and the Ofgem TOM and Project Boards will provide advice to assist the SRO in making decisions on the detailed design and development for MHHS.

2. **Objective of the DAB**

2.1. The objective of the DAB is to provide expert advice to the SRO on TOM development recommendations made by the CCDG and AWG and Ofgem policy considerations required as part of the Settlement Reform Significant Code Review (SCR). The DAB will assess whether TOM development recommendations are consistent with the TOM strategic objectives and meet the requirements of the TOM design and development principles.

2.2. In particular, the DAB's assessment should consider whether TOM development recommendations promote innovation and competition, facilitate a smart, flexible energy system, and reduce the barriers to entry into the energy market for new entrants.

3. **Scope and deliverables of the DAB**

3.1. The DAB will review TOM development recommendations, where appropriate, which have been recommended by the CCDG and/or AWG before they are taken to the SRO for decision. It may also provide expert advice and input on any other issues requested by the CCDG, AWG or the Ofgem TOM Team to assist the development of TOM options and recommendations.

3.2. The DAB may also discuss and provide their expert advice on aspects of Ofgem policy considerations related to the Settlement Reform SCR, as requested by Ofgem, such as the impact assessment, business case, consumer impacts and access to half hourly data for settlement purposes.

Review of TOM development recommendations

3.3. The Ofgem TOM Team will determine when to escalate a TOM development recommendation to the DAB for review.

3.4. If a TOM development recommendation has been escalated to the DAB for review, the Ofgem TOM Team will arrange for the CCDG Technical Lead or AWG Ofgem Technical Consultant to give a presentation to the DAB on the TOM development recommendation. Members of the DAB will also be provided with an explanatory paper which provides a detailed explanation and rationale of the development recommendation.

3.5. The DAB will provide views and its recommendations, together with supporting evidence and rationale, so that this can be taken into consideration by the SRO. Views and recommendations of the DAB will be prepared by the Chair of the DAB and be provided to the SRO in writing. The DAB will endeavour to provide consensus views and recommendations to the SRO. Where consensus cannot be reached, minority views, including reasons for these, will also be provided to the SRO.

Provision of expert advice

3.6. The DAB may also provide expert advice and input on issues requested by the CCDG, AWG, or the Ofgem TOM Team to assist the development of TOM options and recommendations. This will be done on an ad-hoc basis.

3.7. In performing its functions, the DAB will:

- Review and assess TOM development recommendations escalated by the Ofgem TOM Team and provide guidance and recommendations to the SRO on these development recommendations;
- Review and provide guidance on development issues raised by the CCDG, AWG, or the Ofgem TOM Team when requested;
- Identify and flag any risks, issues and dependencies that should be addressed by the CCDG, AWG, or the Ofgem TOM Team;
- Provide a strategic assessment of whether TOM development recommendations will assist in the objectives of MHHS;
- Provide views and expert advice on aspects of Ofgem policy considerations related to the Settlement Reform SCR, as requested by Ofgem; and
- Any assessment and advice provided by the DAB should be given in the context of the overall project objectives, the TOM design principles, TOM development principles, Ofgem policy decisions and the Government objective of a smart, flexible energy system.

3.8. The minutes of the DAB will be recorded and published by Ofgem.

4. **Role of the Chair**

4.1. The DAB will be led by Ofgem (“the Chair”).

4.2. The role of the Chair is to facilitate discussion, enable challenge and ensure the DAB provides robust and effective review of TOM development recommendations, and expert advice. In accordance with the DAB’s Terms of Reference and the MHHS

governance and decision-making, the Chair will ensure advice and recommendations for aspects of the TOM development and the final TOM are delivered in a timely fashion and are in line with the project's design and development principles and Ofgem's project objectives.

5. Constitution of the DAB

- 5.1. Ofgem will invite representatives to be members of the DAB and ensure there is appropriate representation to perform the tasks and achieve the objective of the DAB. The Chair may also invite specific people to participate in the DAB on an ad-hoc basis if there is a requirement for particular expertise.
- 5.2. The DAB is a senior level group. Members will have a diverse range of expertise and experience, and be able to provide insights on whether proposed TOM development recommendations and wider Ofgem policy considerations would achieve Ofgem's objective of facilitating change in the energy system. Members should have a strategic understanding of the MHHS project.
- 5.3. The DAB will be constituted of experts sourced from a wide range of stakeholder viewpoints to challenge TOM development recommendations and ensure they deliver arrangements which enable a smart, flexible energy system. Members will be named individuals and drawn from bodies with relevant expertise.

6. Meetings and frequency

- 6.1. Meetings of the DAB will be chaired and facilitated by the Chair.
- 6.2. The DAB will meet on an ad-hoc basis, as deemed appropriate by the Ofgem TOM team during the development phase of the TOM design work. The forward work plan and time, date and location of meetings will be set and organised by the Chair.

7. Rules of participation

- 7.1. DAB members are expected to make all reasonable efforts to attend meetings and constructively contribute.
- 7.2. A named alternate for each member shall be identified to ensure meetings can take place where members are not able to attend. Alternates shall only attend when the member is not able to attend.
- 7.3. The Chair will have the discretion to invite interested parties on an ad-hoc basis to attend any meeting to aid in the business of the DAB and progression of any deliverables.

7.4. For the avoidance of doubt, any discussions in meetings and views expressed or implied in such discussions, or in associated documents, are without prejudice to, and shall not limit the discretion of Ofgem with regard to its final decisions. Equally, views expressed by members/attendees will not be treated as representative of organisations they are employed by or otherwise affiliated with.

7.5. The Chair can revoke the membership of a DAB member if they:

- fail to constructively contribute to the MHHS development work; or
- there are circumstances that, in the view of the Chair, mean that the continued participation of members would be to the detriment of the achievement of the objective of the development work. If members consider that such circumstances exist, it is their responsibility to bring the matter to the attention of the Chair.

7.6. It is the responsibility of the members to ensure compliance with competition law while participating within the DAB.

8. **Administration**

8.1. Ofgem will chair the DAB and provide secretariat functions.

8.2. Ofgem will provide agendas and papers at least 5 working days in advance of each meeting and summarise key decisions and actions within 10 working days of each meeting.

8.3. The schedule of meetings, agendas and accompanying papers and minutes will be published in a timely manner on the Ofgem website.

8.4. Meetings will be held at Ofgem's office in London unless otherwise notified.

9. **Review**

9.1. Ofgem may review and update the Terms of Reference, membership and operation of the DAB at any time. This is to ensure they remain appropriate for the requirements of the MHHS project. Ofgem will consult with the DAB prior to making any changes.

Appendix 2D: MARKET-WIDE HALF-HOURLY SETTLEMENT: CODE CHANGE AND DEVELOPMENT GROUP (CCDG) TERMS OF REFERENCE

This document sets out the Terms of Reference for the Code Change and Development Group (CCDG), for use during the next stage of developing the Target Operating Model (TOM) for Market-wide Half Hourly Settlement (MHHS).

This workgroup builds on the work already carried out by the Design Working Group (DWG), which has designed the Preferred TOM and transition approach.²³

1. Purpose

- 1.1. The objective of the MHHS project is to develop and then implement an enduring process for MHHS that delivers benefits for consumers by maximising the opportunities provided by smart metering in enabling a smart, flexible energy system.
- 1.2. To enable achievement of this objective, the CCDG will develop, consult on and recommend solutions for the detailed areas of the TOM design which the DWG and/or Ofgem identify as outstanding when the DWG delivered its final report in August 2019. The outstanding areas may include but are not limited to:
 - Industry standing data, including new or redundant data items;
 - GSP Group Correction;
 - Exception Reporting;
 - Interfaces between TOM services;
 - Registration, appointments and data arrangements;
 - Settlement of Export;
 - Settlement 'run-off' arrangements; and
 - Robust processes for Change of Measurement Classes

If necessary, the CCDG should consider or recommend transition approaches for given areas.

²³ See Appendix 1 for the DWG Final report on the Preferred TOM and Transition Approach.

- 1.3. The CCDG will receive updates, and provide feedback on the work being undertaken by the Balancing and Settlement Codes (BSC) Performance Assurance Board (PAB) and Trading Disputes Committee (TDC) on the Performance Assurance Framework (PAF) and Disputes Process to support MHHS. This should include the CCDG's recommendation on which (if any) industry code changes to support this work should be progressed as part of the Settlement Reform Significant Code Review.
- 1.4. The CCDG will identify the changes required to relevant industry codes and subsidiary documents,²⁴ and will review and consult on draft legal text developed for each Code by the relevant Code Administrators.²⁵

2. Scope

- 2.1. The CCDG will deliver TOM development recommendations to the Ofgem TOM Team.
- 2.2. The CCDG will ensure that its recommendations are consistent with:
 - All related Ofgem policy decisions and steers, as published by Ofgem as part of its Significant Code Review on Electricity Settlement Reform;
 - The Architecture Working Group's recommendations;
 - Ofgem's overall MHHS project objectives, the TOM design principles and the TOM development principles;
 - The DWG's Preferred TOM design and transition approach/principles, unless Ofgem requests changes to these;
 - Any request, steer or decision from the SRO; and
 - Interactions between options and other aspects of market arrangements.
- 2.3. The Ofgem TOM Team will escalate the CCDG's recommendations to the Senior Responsible Owner (SRO), who will be advised by the Design Advisory Board as required, for decision. Final decision, on the TOM development recommendations, including transition approach and industry code changes, rests with the SRO.

3. Deliverables

²⁴ For more information on the Industry Codes and Code Administrators please see the Ofgem website: <https://www.ofgem.gov.uk/licences-industry-codes-and-standards/industry-codes>

²⁵ <https://www.ofgem.gov.uk/licences-industry-codes-and-standards/industry-codes>

- 3.1. The CCDG will, within 2 months of forming, provide a proposed work plan with timescales to Ofgem for approval. This will include the timelines for the final, and any interim, milestones and consultations. It will also include a list of CCDG decisions that are dependent on Ofgem policy decisions or recommendations made by the AWG.
- 3.2. By the agreed deadline, the CCDG will deliver a report to the Ofgem TOM Team that sets out:
- The CCDG’s recommendations on the development of the outstanding TOM areas, with accompanying evidence and rationale;
 - Feedback on the PAB’s and TDC’s MHHS PAF/disputes work, including the CCDG’s recommendation on which (if any) supporting industry code changes and/or subsidiary documents in this area should be delivered using MHHS project governance;
 - Tabulation of impacts on industry codes and industry-facing code subsidiary documents, with clear and easy to understand explanations of the impacts;
 - Draft legal text for each relevant industry code in preparation for implementation;
 - Work carried out on the transition approach for the developed areas;
 - Assessment of the recommendations against the TOM Design Principles and the TOM Development Principles;
 - Any dependencies on other work areas under the Significant Code Review on Electricity Settlement Reform, other Significant Code Reviews or other industry initiatives; and
 - The consultation responses received by the CCDG on the above areas.
- 3.3. The Ofgem TOM team may request other deliverables as appropriate. These may include providing technical input on policy issues or on any potential changes to the TOM design following Ofgem’s Request for Information and Impact Assessment.

4. Role of ELEXON

- 4.1. ELEXON will chair the CCDG and will provide the workgroup with a technical secretariat function and one or more technical leads.

- 4.2. The Chair will ensure that the CCDG completes its deliverables to the timescales agreed with Ofgem as set out in paragraph 3.1. and the requirements contained in these Terms of Reference. This includes facilitating discussion across the group, enabling challenge, ensuring options are considered thoroughly, ensuring that interested parties have opportunity to engage in discussions and that proposals should be generated and developed in a way which ensures credibility across all the parties involved. The Ofgem TOM Team will provide support to the Chair as required.
- 4.3. The technical secretariat will provide notification of meetings (including their time, date and location) and shall circulate associated paperwork to the CCDG. Agendas and papers will be circulated at least 5 working days in advance of each meeting, except in the case of any matters that the Chair deems to be urgent. A summary of the key decisions and actions will be circulated within 10 working days of the meeting. With the exception of any confidential items, ELEXON will publish all CCDG paperwork on its website.
- 4.4. The technical lead(s) shall:
- Advise the CCDG on technical matters relating to Settlement and the TOM development/transition;
 - Lead on identifying BSC impacts and drafting BSC legal text for the CCDG's review;
 - Lead on identifying and developing options, 'straw men' analysis, and other materials for discussion by the CCDG;
 - Co-ordinate with other relevant industry codes on their impacts and legal drafting;
 - Co-ordinate with the PAB and TDC on their related work and ensure that the CCDG receives timely updates on this work;
 - Lead the drafting of consultations and reports for the CCDG's review and approval;
 - Regularly update the Ofgem TOM team on the progress of the work outside of formal meetings of the CCDG;
 - Present the CCDG's recommendations to the Ofgem TOM Board and Design Advisory Board, as required to support the SRO's decision-making, providing explanation of technical detail and rationale upon request; and

- Attend the Architecture Working Group as an observer.

5. Membership

- 5.1. Ofgem will appoint members to the CCDG following an open invitation to apply for membership. It is anticipated that the group will have no more than 12 members. ELEXON will publish a list of members on its website.
- 5.2. Ofgem will identify, with ELEXON's advice, which applicants are best placed to perform the tasks and achieve the objectives of the CCDG. This includes ensuring that the group's membership includes a range of stakeholder viewpoints and has collective coverage of the following areas of expertise:
- Detailed BSC Settlement processes and the ability to identify how these are impacted by reforms;
 - Market Participants' roles and processes;
 - The regulatory framework;
 - Other relevant industry codes (including the DCUSA, MRA, REC and SEC);
 - Relevant consumer issues; and
 - Relevant innovation and technology aspects that MHHS might influence/enable.

6. Participation

- 6.1. The CCDG shall agree its day-to-day ways of working in order to deliver its Terms of Reference. This may include varying the number/timing of meetings as required to support its workload, use of teleconference or other remote meetings and collaboration by members outside of formal meetings. This may include sub-working groups to work on specific aspects. ELEXON shall provide appropriate meeting and conferencing facilities.
- 6.2. Wherever possible, the CCDG's recommendations will be based on a consensus view. However, where a different minority view exists, the Chair will ensure that this is considered and reported in the group's consultations and reports. If in exceptional circumstances, a member believes a minority view is not properly being taken into account and should be escalated to Ofgem for decision, this should be provided in

writing to the Ofgem TOM team, setting out the reasons for the escalation and the minority view.

- 6.3. CCDG members will not have alternates. Where attendance by all members is not possible, meetings will be held on the basis of the majority availability of members.
- 6.4. The Chair and Ofgem will have the discretion to invite interested parties, or outside experts, to attend any meeting on an ad-hoc basis to support as required. The CCDG may also invite the Code Administrators of other relevant industry codes to attend its meetings as required to support its work.
- 6.5. CCDG members are expected to fulfil a full participatory role in the workgroup, including input into any work before/between meetings and review of output from the meetings.
- 6.6. Ofgem can, in consultation with the Chair, revoke the membership of a CCDG member if:
 - The member fails to contribute constructively to the work of the group; and/or
 - There are circumstances that, in Ofgem's view, mean that the member's continued participation would be to the detriment of achieving the objectives of the CCDG for MHHS. If members consider that such circumstances exist, it is their responsibility to bring the matter to the attention of the Chair and Ofgem TOM Team.
- 6.7. Views expressed by CCDG members/attendees will be treated as expert advice in the delivery of its function.
- 6.8. It is members' responsibility to ensure their compliance with competition law while participating within the CCDG.
- 6.9. Ofgem will attend the CCDG as an observer to monitor progress and to provide strategic input on the development to ensure it fits with the project objectives and principles. For the avoidance of doubt, Ofgem is not a member of the CCDG and cannot vote on recommendations. Any discussions in meetings and views expressed or implied in such discussions, or in associated documents, are without prejudice to, and shall not limit, the discretion of Ofgem with regard to its final decisions.

7. Review of these Terms of Reference

- 7.1. Ofgem may review the CCDG's Terms of Reference, membership and operation at any time in consultation with the Chair.
- 7.2. Following a review under clause 7.1, Ofgem may make changes to the Terms of Reference, membership, or operation of the CCDG to ensure they remain appropriate for the requirements of the MHHS project.

Appendix 2E: MARKET-WIDE HALF-HOURLY SETTLEMENT: ARCHITECTURE WORKING GROUP (AWG) TERMS OF REFERENCE

This document sets out the Terms of Reference for the Architecture Working Group (AWG), for use during the next stage of developing the Target Operating Model (TOM) for Market-wide Half Hourly Settlement (MHHS).

This workgroup builds on the work already carried out by the Design Working Group (DWG), which has designed the Preferred TOM and transition approach.²⁶

1. Purpose

- 1.1. The objective of the MHHS project is to develop and then implement an enduring process for MHHS that delivers benefits for consumers by maximising the opportunities provided by smart metering in enabling a smart, flexible energy system.
- 1.2. To enable achievement of this objective, the AWG will develop, consult on and recommend solutions for the system architecture design required to enable the preferred TOM. The areas to be considered may include:
 - Changes to the registration systems and the interface with Meter Point Registration Service;
 - Interfaces with the Data Communications Company;
 - Any central database of Half-hourly data and potential third party access (including security consideration); and
 - Data transfer.
- 1.3. The AWG will identify the required system architecture changes to BSC central systems, other code administrator systems, and define the interface specifications.

2. Scope

- 2.1. The AWG will deliver TOM development recommendations to the Ofgem TOM Team.
- 2.2. The AWG will ensure that its recommendations are consistent with:

²⁶ See Appendix 1 for the DWG Final report on the Preferred TOM and Transition Approach.

- All related Ofgem policy decisions and steers, as published by Ofgem as part of its Significant Code Review on Electricity Settlement Reform;
- The Code Change and Development Group’s recommendations;
- Ofgem’s overall MHHS project objectives, the TOM design principles and the TOM development principles;
- The DWG’s Preferred TOM design and transition approach/principles, unless Ofgem requests changes to these;
- Ofgem’s Data & Security Principles and guidance for following NCSC Secure by Design principles;²⁷
- The desirability for energy industry systems and processes to become more streamlined and coherent;
- Any request, steer or decision from the SRO; and
- Consideration of other aspects of market arrangements.

2.3. The Ofgem TOM Team will escalate the AWG’s TOM development recommendations to the Senior Responsible Owner (SRO), who will be advised by the Design Advisory Board as required, for decision as appropriate. Final decision-making on the TOM design, and system architecture rests with the SRO.

3. Deliverables

3.1. The AWG will, within 2 months of forming, provide a proposed work plan with timescales to Ofgem for approval. This will include timings for the delivery of recommendations required to inform the work of the CCDG and the other Ofgem work streams including the Business Case. It will also include the timelines for the final, and any interim, milestones and consultations

3.2. In the agreed time, the AWG will deliver a report to the Ofgem TOM Team that sets out:

- The design principles and constraints, as agreed by the AWG;

²⁷ Ofgem’s Data and Security Principles are currently being developed and will include recommendations from the NCSC Cyber Security Design Principles (<https://www.ncsc.gov.uk/collection/cyber-security-design-principles/cyber-security-design-principles>), Cloud Security Principles (<https://www.ncsc.gov.uk/collection/cloud-security?curPage=/collection/cloud-security/implementing-the-cloud-security-principles>) and Protecting Bulk Personal Data (<https://www.ncsc.gov.uk/collection/protecting-bulk-personal-data>)

- The functional requirements;
- The solution architecture;
- The AWG’s recommendations with accompanying evidence and rationale, including a risk assessment on the recommendations, and the identified impacts on industry parties and end consumers;
- Assessment of the recommendations against the TOM Design Principles and the TOM Development Principles;
- Any dependencies on other work areas under the Significant Code Review on Electricity Settlement Reform, other Significant Code Reviews or other industry initiatives; and
- The consultation responses received by the AWG on the above areas.

3.3. The Ofgem TOM team may request other deliverables as appropriate. These may include any potential changes to the TOM design following Ofgem’s Request for Information and Impact Assessment.

4. Role of ELEXON

4.1. ELEXON will chair the AWG and will provide the workgroup with a technical secretariat function and one or more technical leads.

4.2. The Chair will ensure that the AWG completes its deliverables to the timescales and requirements contained in these Terms of Reference and associated work plan. This includes facilitating discussion across the group, enabling challenge, ensuring options are considered thoroughly, ensuring that interested parties have opportunity to engage in discussions and that proposals should be generated and developed in a way which ensures credibility across all the parties involved. With the support of the Ofgem Technical Consultant, the Ofgem TOM Team will provide support to the Chair as required.

4.3. The technical secretariat will provide notification of meetings (including their time, date and location) and shall circulate associated paperwork to the AWG. Agendas and papers will be circulated at least 5 working days in advance of each meeting, except in the case of any matters that the Chair deems to be urgent. A summary of the key decisions and actions will be circulated within 10 working days of the meeting. With the exception of any confidential items, the Chair will publish all AWG paperwork on its website.

4.4. The technical lead(s) shall:

- Advise the AWG on technical matters relating to Settlement and the TOM design/transition;
- Lead on identifying BSC system impacts;
- Lead on identifying and developing options, 'straw men', analysis and other materials for discussion by the AWG;
- Co-ordinate with other relevant industry codes on their impacts;
- Lead the drafting of consultations and reports for the AWG's review and approval;
- Regularly update the Ofgem TOM team on the progress of the work outside of formal meetings of the AWG;
- Attend the Code Change and Development Group as an observer, as required.

5. Role of Ofgem

5.1. Ofgem will attend the AWG to monitor progress and to provide strategic input on the development to ensure it fits with the project objectives and principles. This will include providing a Technical Consultant to participate in AWG discussions.

5.2. The Ofgem Technical Consultant shall:

- Advise the AWG on technical matters;
- Facilitate discussions;
- Ensure that analysis of options considered by the AWG is consistent, and that the impacts of the options have been fully identified;
- Ensure that interested parties have opportunity to engage in discussions and that proposals are generated and developed in a way which ensures credibility across all the parties involved;
- Present the AWG's recommendations to the Ofgem TOM Board and Design Advisory Board, as required, to support the SRO's decision-making, providing explanation of technical detail and rationale upon request;
- Lead on identifying risks; and
- Advise the Ofgem TOM team on when the AWG's recommendations should be taken to the SRO for decision.

5.3. For the avoidance of doubt, Ofgem is not a member of the AWG and cannot vote on recommendations. Any discussions in meetings and views expressed or implied in such discussions, or in associated documents, are without prejudice to, and shall not limit, the discretion of Ofgem with regard to its final decisions.

6. Membership

6.1. Ofgem will appoint members to the AWG following an open invitation to apply for membership. It is anticipated that the group will have no more than 12 members. ELEXON will publish a list of members on its website.

6.2. Ofgem will identify which applicants are best placed to perform the tasks and achieve the objectives of the AWG. This includes ensuring that the group's membership includes a range of stakeholders and has collective coverage of the following areas of expertise:

- The system architecture and processes of relevant industry codes (including the BSC, DCUSA, MRA, REC and SEC);
- Market Participant's IT systems and processes;
- The regulatory framework;
- Relevant consumer issues;
- Relevant innovation and technology aspects that the MHHS might influence/enable; and
- System architecture industry best practice and security standards.

7. Participation

7.1. The AWG shall agree its day-to-day ways of working in order to deliver its Terms of Reference. This may include varying the number/timing of meetings as required to support its workload, use of teleconference or other remote meetings and collaboration by members outside of formal meetings. ELEXON shall provide appropriate meeting and conferencing facilities.

7.2. Wherever possible, the AWG's recommendations will be based on a consensus view. However, where a different minority view exists, the Chair will ensure that this is considered and reported in the group's consultations and reports. If in exceptional circumstances, a member believes a minority view is not properly being taken into account and should be escalated to Ofgem for decision, this should be provided in writing to the Ofgem TOM team, setting out the reasons for the escalation and the minority view.

- 7.3. AWG members will not have alternates. Where attendance by all members is not possible, meetings will be held on the basis of the majority availability of members.
- 7.4. The Chair and Ofgem will have the discretion to invite interested parties, or outside experts, to attend any meeting on an ad-hoc basis to support as required. The AWG may also invite the Code Administrators of other relevant industry codes to attend its meetings as required to support its work.
- 7.5. AWG members are expected to fulfil a full participatory role in the workgroup, including input into any work before/between meetings and review of output from the meetings.
- 7.6. Ofgem can, in consultation with the Chair, revoke the membership of a AWG member if:
- The member fails to contribute constructively to the work of the group; and/or
 - There are circumstances that, in Ofgem's view, mean that the member's continued participation would be to the detriment of achieving the objectives of the AWG for MHHS. If members consider that such circumstances exist, it is their responsibility to bring the matter to the attention of the Chair and Ofgem TOM Team.
- 7.7. Views expressed by AWG members/attendees will be treated as expert advice in the delivery of its function.
- 7.8. It is members' responsibility to ensure their compliance with competition law while participating within the AWG.
- 7.9. The Code Administrators of other relevant Industry Codes will be invited to attend the AWG's meetings as observers, or apply to become members as outlined in paragraph 5.

8. Review of these Terms of Reference

- 8.1. Ofgem may review the AWG's Terms of Reference, membership and operation at any time in consultation with the Chair.
- 8.2. Following a review under clause 8.1, Ofgem may make changes to the Terms of Reference, membership, or operation of the AWG to ensure they remain appropriate for the requirements of the MHHS project.

Appendix 2F: Target Operating Model Design Principles

TOM Design Principles can be found on the Ofgem Website here:

<https://www.ofgem.gov.uk/publications-and-updates/ofgem-response-feedback-significant-code-review-launch-statement>

Direct Link:

https://www.ofgem.gov.uk/system/files/docs/2018/01/updated_target_operating_model_design_principles.pdf