

Feedback Form

Electricity retail market-wide half-hourly settlement: consultation

Please send this form to HalfHourlySettlement@ofgem.gov.uk once completed.

As noted in the consultation document, no deadline for responses is being set at this time. When we set one, we will publish an update on the Ofgem website, and give at least 10 weeks' notice.

Organisation: ELEXON

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Target Operating Model (TOM)

1. We propose to introduce MHHS on the basis of the Target Operating Model recommended by the Design Working Group last year. Do you agree? We welcome your views.

Yes, we agree.

We are delighted that Ofgem gave its preliminary approval to the Design Working Group's (DWG's) recommended Target Operating Model (TOM) in October 2019, and that Ofgem continues to support the DWG's recommendations in this consultation.

The DWG's recommended TOM represents the culmination of two years of work by ELEXON and the group members. The DWG developed, assessed and consulted upon five viable TOMs. All but one DWG member believed that the recommended TOM best delivers Ofgem's Design Principles and strategic objectives for delivering a smarter, more flexible energy system.

The DWG's recommendation took account of:

- Ofgem's policy steers/decisions on Supplier Agent functions and Access to Half Hourly (HH) data; and
- The views of respondents to the DWG's consultation on its chosen TOM, the majority of whom agreed with the DWG's recommendation.

The DWG's full assessment is set out in its February 2019 report on its preferred TOM, and in its August 2019 final report to Ofgem. Both reports are available from ELEXON's [DWG web page](#) and provide more context to our answers to this consultation.

2. Ofgem's preferred position is that HH electricity consumption data should be sent to central settlement systems in non-aggregated form. Do you agree?

We welcome your views.

Yes, we agree.

At Ofgem's request, the DWG considered whether submitting aggregated data into Settlement is still necessary/desirable and whether receiving disaggregated data could better future-proof the TOM to facilitate subsequent changes and other uses of data.

All but one DWG member agreed that it is unnecessary and inefficient to maintain a separate aggregation function outside of central Settlement. The majority of the DWG agreed that maintaining this legacy model would limit the TOM's ability to facilitate data accuracy as well as the flexibility to support future change, innovation and insight. This view was supported by a majority of respondents to the DWG's consultation.

We note that Ofgem has considered both the majority and minority views expressed during the DWG's work, as well as the further responses to Ofgem's own Request for Information, and has reached the same conclusion as the DWG.

Settlement timetable

3. We propose that the Initial Settlement (SF) Run should take place 5-7 working days after the settlement date. Do you agree? We welcome your views.

Yes, we agree that the Initial Settlement (SF) Run should take place 5-7 working days after the Settlement Date, as recommended by the DWG.

The DWG believed that this is the shortest timing that can be applied for the reasons given below, at least on initial implementation of the TOM. The DWG noted that this does not preclude further reviews of the timetable in the future, once more information is available on data quality under the TOM.

If HH data was available for all Meters within one working day of the Settlement Date, then the SF Run could occur sooner. However, there will be Meters for which HH data cannot be collected, and for which the TOM services will need time to calculate the necessary HH Settlement data using Register Reads. This includes 'dumb' Meters for customers who have opted out of having a Smart Meter, Smart Meter customers who have opted out of sharing their HH data for Settlement purposes, and any Smart or Advanced Meters with faults or communication issues.

For Meters where no HH data is available, the Load Shaping Service needs sufficient data in each GSP Group and for sufficient Domestic and Non-Domestic customers to enable the Load Shapes to be produced and provided to the Smart Data Services (SDS). The SDS needs sufficient time to apply the Meter volumes derived from the Register Readings from Meters where the HH data cannot be collected. The out-turn data then needs to be provided back to BSC Central Services.

Only after all the data has been returned for these Meters can the next stage in the process start. The Market-wide Data Service (MDS) will identify partial or missing data and default as required. The MDS will then need to apply the Line Loss Factors (LLF) to the data to calculate the losses associated with each set of HH data. Once the losses have been calculated, the MDS can then add up all the data by Supplier, GSP Group and Consumption Component Class (CCC).

All of the above steps are required before a Volume Allocation Run (VAR) can be initiated. Taking into account the number of steps above, the DWG considered that between 5 and 7 days is a realistic timetable.

4. We propose that the Final Reconciliation Run (RF) should take place 4 months after the settlement date. Do you agree? We welcome your views.

Yes, we agree that the RF Run should take place at 4 months as recommended by the DWG.

The DWG believed that this is the shortest timing that could be applied for the reasons given below, at least on initial implementation of the TOM. The DWG noted that this does not preclude further reviews of the timetable in the future, once more information is available on data quality under the TOM.

The timing of the RF Run affects the amount of time that Suppliers have to obtain Meter data, including detecting/correcting any faults or errors that prevent data collection or affect data accuracy. The DWG considered that making the RF Run timing too short could therefore risk an increase in Trading Disputes to correct Settlement Errors after RF.

Data can be collected relatively quickly for Advanced Metering Systems and for Smart Meters with working communications. In the existing HH market, 99% of consumption volume can be collected within 15 working days. Likewise, unmetered supply data can be calculated and provided within a few working days following the Settlement Date.

However, there will still be 'dumb' Meters in existence for customers who have chosen not to have a Smart Meter, as well as Smart or Advanced Meters with communication issues or with faults that affect the recording of data. These may require site visits to read / rectify.

For example, in the existing Load Research Sample (used to construct the current Settlement Profiles), around 200 of 2,000 sites have Advanced Meters that required site visits to read. The proportion in the general population, which may need a physical reading should be lower, but would still mean there is a significant number of site visits to be made.

The DWG agreed that shortening the RF timing from its existing 14 months to 4 months gives an appropriate balance between:

- Maximising the number of Meters for which actual, rather than estimated, data is available (assuming that Smart Meters are read at least monthly and 'dumb' Meters at least quarterly);
- Allowing a realistic window to detect and correct faults/errors; and
- Enabling earlier certainty and settlement of financial liabilities for Parties.

The DWG recommended that transition to the new Settlement timetable should only occur once the full TOM is in place, based on an assessment of the data available. We note that Ofgem has accepted this recommendation, as shown in its SCR Programme Plan in Section 6 of the consultation.

5. We propose that the post-final (DF) settlement run should take place 20 months after the settlement date, with the ratcheted materiality proposals described in chapter 4. Do you agree? We welcome your views on this proposal, and in particular about its potential impact on financial certainty for Balancing and Settlement Code parties.

Yes, we agree with these recommendations, which align with those of the DWG.

The DWG believed that 20 months is the shortest DF Run timing that could be applied, at least on initial implementation of the TOM, for the reasons given below. The DWG noted that this does not preclude further reviews of the timetable in the future, once more information is available on data quality under the TOM.

The tension in setting the Post Final Settlement Run timing was between balancing impact on financial certainty for BSC Parties and the ability to correct large material errors that are discovered long after the Settlement Date.

Robust challenge in this area was provided by both Ofgem and the Design Advisory Board (DAB) back to the DWG.

Concerns around issues with Metering Systems in the Central Volume Allocation (CVA) arrangements were of particular concern as errors are likely to be both material and difficult to identify.

As such the ratcheted materiality approach was developed to give greater certainty on the probability of further changes to a BSC Party's position as time progresses following the RF Run.

The DWG agreed that the dispute window should be a multiple of the Reconciliation window. Hence, the 20 months for the Disputes Final

(DF) Run was arrived at by envisaging a total dispute window following RF that is four times the length between the Settlement Date and the RF Run. This would add a further 16 months beyond the four month RF, making the final date for carrying out a Trading Dispute run 20 months beyond the relevant Settlement Date.

Under this arrangement, every Settlement Date that reaches RF would be subject to four successive dispute windows of the same length, with the qualifying materiality rising at each repetition, creating materiality 'tiers' in each four month band. The DWG's expectation is that this would have the effect of raising the bar for Trading Disputes to ensure that the materiality of a Settlement Error is balanced against the age of the error.

ELEXON has developed these proposals further with the Trading Disputes Expert Group (TDEG) as part of a wider Trading Disputes Review. The TDEG supports the DWG's proposals for the DF timetable, and specific recommendations will be published when it completes its review later in 2020.

Export-related meter points

6. We propose to introduce MHHS for both import and export related MPANs. Do you agree? We welcome your views.

Yes, we agree.

The DWG designed the MHHS TOM to process import and export MPAN data in an identical way, bar some differences in the estimation processes where data is unavailable.

The Smart Export Guarantee (SEG) already requires Suppliers with a certain portfolio size to offer export tariffs. Where such tariffs are accepted by exporting customers, the Supplier is required to ensure that the appropriate Metering is fitted and that the export data is settled. However, the SEG does not mandate that this is via HH Settlement.

The non-settlement of export 'spill' has been an ongoing issue in the existing market. It causes forecasting issues for Suppliers since they have no visibility of the export spill volumes other than their impact on GSP Group Correction Factors (GCFs). GCFs themselves cause uncertainty for Suppliers in forecasting their final imbalance positions.

The ELEXON-led Settlement Reform Advisory Group (SRAG) estimated the volume of Export Spill as being greater than 1 TWh (see [SRAG modelling of export spill](#)).

The DWG believed that excluding export from the scope would diminish the benefit of MHHS, especially for enabling innovation, the transparency of spill and impact on Settlement accuracy. We agree with the DWG's view and support Ofgem's recommendation to include export in the scope of MHHS.

7. We propose that the transition period to the new settlement arrangements should be the same for import and export related MPANs. Do you agree? We welcome your views.

Yes, we agree.

We believe that there is no obvious benefit in implementing the TOM for import only. Leaving export MPANs to be settled under the existing arrangements could actually be a barrier to migrating MPANs to the TOM.

If export MPANs are not transitioned to the TOM at the same time as import, the commercial models for existing Supplier Agents might disappear as they would be left supporting a small number of export MPANs. If existing Agents choose to exit the market knowing that their business is time-bound, this could require an 'agent of last resort' to support these remaining export MPANs, which would have commercial and financial implications for the market. If both import and export MPANs are migrated together, the exit arrangements and timetable can be curtailed earlier.

Transition period

8. We propose a transition period of approximately 4 years, which at the time of analysis would have been up to the end of 2024. This would comprise an initial 3-year period to develop and test new systems and processes, and then 1 year to migrate meter points to the new arrangements. Do you agree? We welcome your views.

At this stage this plan looks reasonable, subject to what responses are submitted by industry on the activities and timescales of these. We have worked already with you to identify key risks and issues for the transition and migration, taking on board lessons learnt from P272 migration, Faster Switching.

We think key areas of focus are the use of your Smart Meter Act powers to enable timely decisions, empowerments and changes to the industry governance, including codes. It will also need appropriate requirements in licences to ensure all parties involved are committed and driving forwards to implement MHHS.

There are a number of key initiatives happening over the coming years you have referred to such as Faster Switching, Retail Energy Code, TCR, Access and Forward looking charges. These will need careful monitoring as there are interdependencies between them all on market participants, their systems developments, architecture and testing windows. One way to tackle this could be an industry steering group chaired by Ofgem to ensure all the dependencies and timings and activities are co-ordinated and relevant risks mitigated and cross work managed with each project manager reporting to the group.

9. We have set out high-level timings for the main parties required to complete a successful 4-year transition to MHHS. Do you agree? We welcome your views, particularly if your organisation has been identified specifically within the timings.

As per question 8, with particular focus on the interactions on relevant initiatives, e.g. TCR, Faster Switching, REC.

10. What impact do you think the ongoing COVID-19 pandemic will have on these timescales?

We are not aware of any. Indeed at Elexon, with remote working, we have continued to manage the programme of detailed design and architecture and code change work that is already underway on MHSS and therefore we do not see any impact from the pandemic. In fact, we would view the need to introduce MHHS as more pressing to realise the substantial benefits that Ofgem has identified.

Data access and privacy

11. We propose that there should be a legal obligation on the party responsible for settlement to collect data at daily granularity from domestic consumers who have opted out of HH data collection for settlement and forecasting purposes. Do you agree that this is a proportionate approach? We welcome your views.

Yes, we agree with this proposal on the understanding that it only applies to smart Meters.

Daily granularity of consumption or export data will minimise any misallocation of the data to be within-day. This, combined with the fact that the new TOM Load Shapes will be reflective of actual in-day temperatures and illumination effects, will maximise the accuracy of volume allocation for opted-out customers. This is a vast improvement on the current Non Half Hourly (NHH) arrangements where data is smeared across the Meter Advance period (which can be up to 14 months).

This data granularity could also be useful for forecasting purposes, as it accurately reflects the volumes on any Settlement date. You have referred to this benefit in your business case analysis as it allows Suppliers to more accurately forecast their position and hence reduce their potential imbalance volumes.

12. Existing customers currently have the right to opt out to monthly granularity of data collection. We are seeking evidence about whether it is proportionate to require data to be collected at daily granularity for settlement and forecasting purposes for some or all of these consumers. We welcome your views.

Yes, we agree that this is proportionate providing that this requirement only applies to Smart Meters.

Customers who opt out of having a Smart Meter may still require site visits to read their 'dumb' Meter. Clearly it is not proportionate to read these Meters on a daily basis. The DWG, however, assumed that dumb Meters would be read at least once a quarter.

13. Should there be a central element to the communication of settlement / forecasting and associated data sharing choices to consumers? For example, this may be a central body hosting a dedicated website or webpage to which suppliers may refer their customers if they want more information. If yes, what should that role be and who should fulfil it? We welcome your views.

Potentially yes.

Domestic consumers, including 'prosumers', are likely to have little understanding of the electricity Settlement arrangements or Suppliers' forecasting processes. It is therefore essential that there is a process to educate consumers on the implications of their data sharing choices, including the societal / environmental benefits of the smart grid system that MHHS will support. If consumers do not understand the benefits of sharing their Smart Meter data, they may opt out of doing so, diminishing the benefits of MHHS.

This education could be provided by the consumer's Supplier as the primary point of contact, potentially using messaging agreed by Ofgem. Alternatively, Suppliers could refer consumers to information on a website provided by a central body. Either way, mechanisms will need to be in place to ensure that consumers receive clear, timely and consistent messaging and that the onus is still on Suppliers to engage proactively with their customers. ELEXON would be happy to assist in formulating messaging around the benefits of sharing HH data for Settlement purposes. However, if the idea of a central website is progressed, we suggest that consumers may be

more likely to rely on information published by an existing body that they consider to be a 'trusted brand' on consumer issues (noting that the body hosting that information does not need to be its author).

We note that hosting the information on a central website would require customers to take an extra step to access and read this, and there is a risk that not all customers may take the time to do so.

It is also important that consumers' data-sharing choices are available to those parties responsible for accessing the data. This will ensure that HH data is not inadvertently collected for opted-out customers. With Faster Switching, a change of Supplier can occur in short timescales and can co-incide with a change to the appointed Data Service. The gaining Supplier/Data Service is unlikely to know the consumer's previous data-sharing choice and there may be a time-lag before the gaining Supplier can contact the consumer to confirm their choice. This may be especially true where customers are transferred between Suppliers in bulk, for example as a result of collective switching or a Supplier of Last Resort (SoLR) event.

The Code Change and Development Group (CCDG), which is developing the lower-level detail of the TOM design, has agreed that there is no Settlement need to record consumers' opt-out status centrally as a stored parameter. It has agreed that the BSC Central Settlement Services will simply process the data received from the relevant Data Service, noting that the data itself will record how it is derived. The CCDG notes that some of the governance around the opt-out process is still being developed by Ofgem, and therefore welcomes early clarity on how Ofgem intends the Data Service to know whether a consumer has opted-out of sharing its Smart Meter data for Settlement.

ELEXON suggests that the most efficient solution is for the Registration Service (Supplier Meter Registration Service (SMRS)) to hold a new flag that records the opt-out choice per MPAN, along with the Settlement Date from which the choice is effective. This flag would be updated by the Supplier. As well as enabling gaining Suppliers/Data Services to view the consumer's preference, holding this information centrally in a standardised format will enable reporting and insight into what proportion of customers opt out of sharing their data. Linking the flag to the MPAN will allow reporting by GSP Group (geographic region), for example. This could support Ofgem's future review of the opt-out arrangements.

We recognise that some of Ofgem's identified benefits from MHHS also rely on other third parties (e.g. innovators, academics, policy makers) being able to access consumers' HH Settlement data for

non-Settlement purposes – either to offer services to the consumer or gain insight from the data for public interest. The DWG and its ELEXON-supported successor groups, the CCDG and Architecture Working Group (AWG), have designed the TOM so as not to be a barrier to these potential data uses. However, the actual governance regime associated with this third-party data access falls outside the scope of the TOM.

If a consumer's consent is needed for each additional use of their data, and if this may only be for a time-bound period, this points to a need to maintain multiple data-sharing choices per consumer beyond the two currently-proposed categorisations of Supplier billing and Settlement/forecasting purposes. It also requires consideration of whether the BSC Central Services need to retain Settlement data beyond the point that it is needed for actual Settlement reconciliation purposes under the BSC.

We would therefore welcome early clarity from Ofgem on its third-party access requirements, to ensure that these are compatible with the detailed TOM design being developed by the CCDG and the solution architecture being developed by the AWG. In particular, we welcome clarity on whether it is envisaged that:

- 1) ELEXON would provide each individual third party with direct access to Settlement data (which would require a potentially unlimited number of new interfaces as well as requiring ELEXON to manage the appropriate governance); or
- 2) ELEXON would simply provide Settlement data to another intermediary with its own data governance framework and record of consumer choices (a single new interface from the BSC Central Settlement Services), who would then be responsible for giving data access to the appropriate third parties.

We believe that the second option is more in keeping with Ofgem's data access policy, which we understand only permits ELEXON to use consumers' HH data for Settlement purposes (including network charging). Consideration will need to be given to the scenario that a consumer could opt out of sharing their HH data for Settlement purposes but might wish to share it for other, non-Settlement uses. In this scenario, BSC Central Settlement Services would not hold this HH data.

Consumer impacts

14. Do you have additional evidence which would help us refine the load shifting assumptions we have made in the Impact Assessment?

N/A

15. Do you have any views on the issues regarding the consumer impacts following implementation of MHHS? Please refer to the standalone paper we have published for more detailed information.

N/A

Programme management

16. Do you agree we have identified the right delivery functions to implement MHHS? We welcome your views.

Yes this seems a sensible approach balancing control and degree of mandate/empowerment for the PM co-ordination roles. The PM delivery function will need to be backed by appropriate empowerment by Ofgem and enforcement of participants' work from Ofgem, e.g. through licence and/or code changes.

17. We have set out some possible options for the management of the delivery functions, and a proposal on how these would be funded. We welcome your views on this.

We believe that ELEXON is best placed to take on the programme management role set out in Ofgem's consultation, because of our role at the centre of the electricity market arrangements and the wealth of technical and project management experience that we have. Since the inception of the electricity market ELEXON, in partnership with industry, has successfully project managed many complex and wide-reaching changes to the arrangements. This includes major initiatives such as the introduction of NETA (the New Electricity Trading Arrangements), BETTA (the British Electricity Trading Arrangements) and more closely related to MHHS, P272 – Mandatory HH Settlement for Profile Classes 5-8.

We also have the in-depth technical expertise needed to deliver the programme, as we have led (and continue to lead) the development of the MHHS TOM and its detailed design, architecture and translation into industry codes. We believe this subject matter expertise is key to the successful implementation of MHHS.

Feedback from industry on recent developments such as Project NEXUS and the Faster Switching Programme has included an absence of 'critical friend', lack of ownership from start to finish with one body and missing deep technical knowledge, all of which have contributed to increased risks, costs and timescales. We believe all these aspects would be available to industry and Ofgem, if we were to undertake the PM role and are at the core of ELEXON's service model to our customers, delivered mainly through our dedicated operational support managers. We believe this key capability and approach has aided ELEXON in coming top of Ofgem's 2019 energy code administrators' performance survey for the third year in a row, with 86% of respondents saying they are satisfied with our performance.

Assigning another body is likely to introduce additional risk to MHHS programme and jeopardise delivery and go-live as other bodies would not have this technical expertise to assist in resolving issues that will inevitably arise in the implementation and transition to go-live and they would have to take time to familiarise themselves with the current settlement process and developments to date.

Ofgem has proposed that the PM/SI function is funded by BSC Parties, however we are unclear if this same approach is envisaged for the independent Assurance role. It would therefore be good to understand what Ofgem's proposal would be in this regard. If it were to be funded by BSC Parties, Elexon could procure this Assurance function (with straight pass through costs as per our not for profit status) reporting directly and accountable to Ofgem.

Other

18. Do you have any comments on the Impact Assessment published alongside this document, or any additional evidence that you think we should take into account?

ELEXON agrees with the view that the elective HH Settlement (EHHS) arrangements are unlikely to deliver the level of load shifting identified in the IA. We also think that the elective arrangements promote 'cherry picking' and we are already aware of some existing Suppliers only moving customers to EHHS where it is seen to be beneficial to the Supplier purchasing (e.g. less peaky customers). This gives the potential for 'peakier' customers to remain outside the arrangements and thereby affecting the remaining customer settled NHH. Also there are already a number of issues with customers 'flipping' in and out of elective arrangements on Change of Supplier (CoS). (See DWG discussion on page 17 of the [dwg-final-stage-2-report](#)).

We also agree that the Performance Assurance Framework (PAF) will need to set appropriate Supplier Serials with targets taking into account the number of traditional Meters left in the arrangements post transition and the level of metering faults to be addressed. This will allay some of the cost concerns of parties expressed in the RfI.

With regard to the Data and Communications Company (DCC), we agree that pulling daily data is optimal as requests are less likely to fail, compared to monthly reads (which take longer and risk the call dropping out before the data is collected). Also frequent read schedules are required for the Load Shaping Service (LSS) and for the SF Run, if it is to occur at 5-7 days.

We would also like to reiterate the point that, since large volumes of Meter-level data are required for the LSS, the cost argument that there are increased costs for Meter-level data compared to just having aggregated from Data Services is not relevant. Costs will be incurred for providing the Meter-level data required for the LSS and it is more efficient to just provide Meter-level data than to provide both aggregated and Meter-level data.

On Unmetered Supplies (UMS), we disagree with the statement that Meter Administrator (MA) processes are a relatively manual process that requires significant interaction with the customer. The processes are highly-automated using the MA Equivalent Meter (EM) with automated input from Photo Electric Control Arrays (PECUs) and event logs from Central Management Systems. Smaller UMS customers will not necessarily require dynamic data input, which simplifies the calculation based on a summary of their inventory data. The summary inventory data for smaller customers need only be updated annually, as the cost risk is much smaller for these supplies. Likewise, it is unnecessary for these smaller customers to interact with the Unmetered Supplies Data Service (UMSDS) as existing large customers do under the existing arrangements. Under existing arrangements, the UMS customers require a contract with the MA. Under MHHS, the Supplier will be required to contract with a UMSDS for UMS customers in their portfolio, with significant economies of scale due to the larger number of small UMS supplies. Hence, the cost per UMS MPAN would be significantly smaller than current UMS contacted charges per HH UMS customer.

On the benefits, we agree with the IA approach to applying higher value to domestic EV load. We foresee that in the future the EV load will be the both the most significant domestic load and the most flexible for load-shifting purposes.

We also note that the Dynamic Despatch Model (DDM) does not account for distribution network costs or cost savings, which would be additional to the figures presented in this analysis. We think the cost savings could be significant if reinforcement is avoided.

We agree that better quality Settlement data provided under MHHS will reduce the quantity of Settlement Errors and the volume of energy allocated to Supplier portfolios through GSP Group Correction Factors (GSPGCF). This will improve Supplier views of their potential imbalance positions, and forecasting.

We also agree that access to Meter-level data is likely to improve tailored offerings like Peer to Peer (P2P), Vehicle to Grid (V2G) and Community Energy Schemes and promote Demand Side Response (DSR) Balancing. We are already looking at BSC changes in these areas which require the Meter-level data to be directly provided to BSC Central Services.

On competition, we believe that the greatly simplified arrangements under the TOM (compared to the existing NHH arrangements) will mean it is easier for new parties to enter the market. This is both

true for smaller Suppliers and parties wishing to provide Data Services.

On data access, we do believe that issues and risk will occur if large numbers of domestic customers opt-out of providing access to their HH data. Daily reads will mitigate this to some degree but we believe appropriate monitoring should be in place on the levels of opt-out occurring in the population. Ofgem would want to closely manage this situation as it may impact their business case analysis. See our answer to Q13 for how we suggest opt-out choices could be recorded and reported.