

Ofgem – MHHS IA Consultation

Stark Response

14 September 2020

The Stark logo consists of the word "Stark" in a white, bold, sans-serif font, centered within a solid dark blue rectangular box.

Stark

Pure Data.
Powerful Insight.

About Stark

- ▶ Stark is a leading provider of energy data and services to non-domestic consumers in the UK.
- ▶ Stark provides data collection and aggregation, analytics, metering, asset finance and energy advisory services to thousands of industrial, commercial and public sector organisations in the UK. Many of our customers are large energy consultants or suppliers who in turn provide our services on to a still larger set of end users.
- ▶ In the electricity market, Stark is an accredited Data Collector and Data Aggregator (DC/DA) for both Half Hourly and Non-Half Hourly metering systems. For non-domestic Half Hourly metering systems, we are the industry number two, behind the legacy monopoly provider. We've consistently grown our portfolio through our relentless focus on data quality, customer service, and market leading analytical tools.
- ▶ Stark plays an important role in the smooth functioning of the UK electricity market and settlements: Stark processes data for settlement for around 20%¹ of the UK's electricity consumption every day.
- ▶ In the Gas market, Stark is an Ofgem registered meter reader under ESTA's ASPCoP guidelines, an AMR Service Provider (ASP), and a Meter Asset Manager (MAM). Stark subsidiary Squire Energy is a GIRS accredited utility services provider and Independent Gas Transporter (IGT).
- ▶ Stark's energy analytics platform is one of the most popular services of its kind for energy, carbon and sustainability professionals in the UK.
- ▶ Stark works with suppliers to deploy smart metering systems (SMETS1 and SMETS2), agent services, elective Half Hourly settlement and analytics.

¹ Stark Analysis, 01 September 2020

Introduction

The transition to Market-wide Half-hourly Settlement (MHHS) is both an essential ingredient of the Net Zero ambition and an opportunity to align the meter-to-bank process with a world where Smart metering (SMETS & AMR) is standard. Ofgem's draft IA suggests that there are significant potential benefits to MHHS but this draft IA is based on broad and unjustified assumptions. The benefits in the draft IA are therefore difficult to quantify and highly sensitive to unpredictable external dependencies. This means selecting a Target Operating Model (TOM) that is optimised for cost, efficiency, security and innovation will be vital to ensuring the enduring success of the Significant Code Review (SCR).

We do not agree that implementing MHHS on the basis of the DWG's TOM will achieve this. For the purpose of calculating the settlement imbalance, sending non-aggregated consumption data to central systems every day is unnecessary and fundamentally less efficient than sending aggregated data periodically. It would result in a duplication of data storage costs and an overall increase in data transportation costs.

We do, however, agree that central systems would benefit from being able to access non-aggregated data, however; because this would be limited to a subset of meter points, a targeted approach would be more proportionate and cost effective. The Association of Independent Meter and Data Agents (AIMDA) has proposed an alternative TOM, which addresses both these issues and we believe would therefore yield greater value for consumers and benefits to industry. We support their proposal and request that our response is read in conjunction with their Alternative TOM paper.

Aside from this, we have previously shared competition concerns relating to the DWG's TOM with Ofgem. Specifically that i) allowing central systems to perform the Data Aggregation function will inhibit innovation by unnecessarily expanding an existing monopoly without justification and ii) when combined with holding a central store of non-aggregated data gifts a statutory monopoly an unmatched competitive advantage in the provision of value-added-services. Whilst Ofgem have acknowledged these concerns in the IA Consultation, we do not feel that they have been fully addressed. The potential distortions to competition are serious; there is a risk that the proposals will have long term effects on innovation in the sector and unnecessarily concentrate market power at the centre of the system which will be difficult to undo. We do not believe the proposals in the consultation paper, and the proposed TOM, have adequately considered and addressed this issue.

We therefore seek a clear policy statement from Ofgem, irrespective of the TOM that is ultimately chosen, that there is no justification or need for Elexon to provide value-added-services, given the effects this could have on existing competition and future innovation. Additionally, that Ofgem will not allow BSC Mod P390² to be used to circumvent their proper review of any request to expand Elexon's commercial operations.

² P390 'Allowing extensions to Elexon's business and activities, subject to additional conditions'

Consultation Response

Target Operating Model (chapter 3)

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

We agree with the minority view expressed at the DWG³ and therefore do not agree that MHHS should be introduced on the basis of the DWG's preferred TOM. Whilst we agree with a number of elements in the DWG TOM, we believe the removal of the Data Aggregation function will create a fundamental inefficiency in the settlement arrangements that unnecessarily drives up costs. For the purposes of calculating the settlement imbalance, it is more efficient and cost-effective for central systems to continue receiving aggregated data periodically than market-wide SP-level data every day. This is especially the case when central systems' actual use cases for non-aggregated data are limited to secondary settlement calculations, disputes and performance assurance. We note that all these uses fall outside of core settlement and whilst beneficial overall, should not be used as an argument to support centralisation of Data Aggregation for settlement.

In paragraph 3.56 of the IA, Ofgem appear to argue that the design of the Load Shaping Service (LSS) under the TOM, which is currently envisaged as receiving non-aggregated data, is by itself sufficient justification for central systems to then also perform Data Aggregation for settlement. This fails to consider the possibility of the LSS utilising aggregated data to create overall market average load shapes for use in estimation processes. It is more cost effective for existing DAs to output two aggregated files, one to the LSS and one to the SVAA, than transfer market-wide SP-level data every day. This would in fact be a cost saving comparative to the TOM.

The Association of Independent Meter and Data Agents (AIDMA) has proposed an alternative TOM, which prevents the noted inefficiency from occurring whilst also maintaining competition in Data Aggregation and the associated benefits this brings to industry and consumers. We support their proposal as a simpler, less intrusive, more proportionate and lower cost means of achieving Ofgem's policy objectives under the SCR. In our view, this alternative TOM scores more highly on a cost-benefit analysis when compared to the majority DWG proposal.

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

We are supportive of the principle of open data in the energy market and agree that non-aggregated consumption data should be *accessible* by central systems but we do not agree that the daily, market-wide transfer of it is either necessary or beneficial. Transferring non-aggregated data to central systems would result in a duplication of data storage costs that is inefficient as well as increased data

³ The DWG was chaired by Elexon and had a large number of Elexon representatives in its composition. To ensure that all views are duly appropriately considered, greater weight should be given to the minority view within the DWG.

transportation costs and security risk. There is no justification for consumers or industry to incur the cost of daily provision of non-aggregated data, particularly as it is unnecessary for MHHS.

AIMDA have proposed an alternative means for central systems, and other interested parties, to benefit from access to non-aggregated data that mitigates these issues by being much more targeted in its approach. We support their proposal and agree with their response to Ofgem's arguments for central systems receiving non-aggregated data.

Settlement timetable (chapter 4)

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.

We agree that exceptions should not be the basis for developing the settlement timetable but they must be factored into any consideration of accompanying performance targets. Reduced settlement accuracy would be an undesirable outcome of the SCR and so targets will have to be set suitably high. The risk, as highlighted by several respondents to the RFI, is the additional cost this may attract from increased frequency of manual read visits and the potential for this to outweigh the benefits of a shorter SF Run.

The IA only gives a qualitative description of the potential benefits that an earlier SF Run could bring. Ofgem should quantify this in order to conduct more robust analysis around the suitability of the shortening the SF run. There is a link between increased estimated data, higher Trading Charges and ultimately the level of credit cover required. We would be concerned if, under the new timetable, there is a greater proportion of estimated data at the SF run, because this could increase the level of credit cover required despite being calculated over a shorter period. This alone could nullify any potential benefits. We would wish to see more analysis of this nature to support any move to a reduced SF run.

The shorter timing also reduces resilience to potential market-wide issues like DCC service downtime and Mobile Network outages. Given the reliance on both for large segments of the market, recovery times and SLAs from both need to be factored in. We therefore believe an SF Run that occurred at least 7 WD after the settlement date would be more appropriate to mitigate these issues.

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.

We have observed that at industry level there is little variation in overall energy and proportion of actual to estimated volumes between each Reconciliation Run (R1-RF) under the existing timetable for HH settlement. This appears to support reducing the RF Run to 4 months as, in the majority of cases, settlement positions are final within a month of consumption.

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.

The proposal for the DF Run to take place up to 20 months after the settlement date with ratcheted materiality is an appropriate balance between allowing opportunity to correct genuine errors and ensuring financial certainty for relevant Parties. An additional benefit is the incentive it places on Parties to ensure settlement is accurate in the first place, which will hopefully boost the overall health of the market.

Export-related meter points (chapter 5)

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

We agree that MHHS should be implemented for both Import and Export MPANs.

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.

We agree that Import and Export MPANs should transition to MHHS simultaneously.

Transition period (chapter 6)

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.

Overall, the proposed transition period is too ambitious and risks creating another key target date in the sector that will be missed.

We understand that Ofgem is keen to realise the benefits of MHHS as soon as possible; however, an overly ambitious transition period risks undermining this and causing further delays. Much of the activity outlined in the initial 3-year design, build and test phase overlaps with other significant industry change programmes, like Faster Switching and the Retail Energy Code. This will place significant strain on industry and code management resource, which can be expected to lead to delays and sub-optimal solutions being implemented. Moreover, we anticipate that the proposed 1-year migration period is unrealistically short. It is difficult not to draw comparisons to P272, where a fraction of the market migrated to HH settlement over an 18-month period. Supplier inertia, differing interpretations of compliance and an initial lack of progress reporting made P272 more challenging than originally anticipated.

Similar challenges could arise here without careful prior consideration. For instance, consumer preferences on access to data for settlement will need to be captured before any migration activity takes place, which will likely be linked to contract renewals or change. This itself is a significant undertaking.

To avoid ambiguity and inertia, compliance conditions must be crystal clear and commonly understood by all participants from the outset, including governance around progress reporting. Even with all of this in place, we believe that 1 year is still too short a timeframe to migrate 30 million metering systems to the TOM. Mass migration will give rise to unexpected issues that will need to be

identified, analysed and resolved by industry whilst continuing to progress towards the compliance deadline. Ofgem needs to consider this and build some contingency into their proposed timeline, particularly given the importance that Ofgem attributes to quick implementation in the Consultation. A 5 year transition period split into a 3-year initial phase and a 2-year migration would be more realistic and allow for better developed solutions, whilst remaining ambitious.

The IA, including its proposed transition period, assumes sufficient penetration of smart meters (85%) by the end of 2024 to support the TOM. The impact of Covid-19 combined with declining installation acceptance and success rates casts this into significant doubt. We therefore believe waiting until this picture becomes clearer before beginning the transition period would be more effective, deliver better results for consumers and avoid wasted effort. This would also allow industry to give MHHS its undivided attention as other programmes will have concluded by this point.

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.

We agree with the sequencing of key events in the indicative timeline provided by Ofgem. However, we do have several concerns. First, we understand that there remains a significant amount of work for the AWG and CCDG to complete. Even with the revised timelines since the publication of the consultation it appears unlikely that both groups will have completed their deliverables by April and October 2021. This will have a knock-on effect to the timings of all other activities. Second, the period for qualification of TOM Services is very tight given the high number of organisations going through the process with varying degrees of role complexity. Third, as highlighted in our response to Q8 the timing of the 1 year migration should be extended, which could be achieved by re-labelling the “pre-migration” period.

Given the importance of timing to Ofgem’s assessment of the relative benefits of different models, any assumptions regarding timing must be realistic, and the timetable must be set accordingly.

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

This is difficult to determine currently, as the situation continues to evolve, but this is another reason for adopting a conservative timetable. COVID-19 will have a major and lasting negative impact on timescales; it has changed businesses, roll-out plans and end user behaviour dramatically. At a minimum we expect the timescales to be impacted by a 6-month delay, however; a 12-month delay might be more realistic. This also depends on potential future lockdowns, regional or national, and the proportion of meters that would require site visits prior to transitioning to MHHS.

As outlined in our response to Q8, MHHS is reliant on the SMETS 2 roll-out, which has been drastically affected by the Covid-19 lockdown. Aside from the lockdown, where only essential work could be carried out, the MO effectiveness (install success rates) have decreased significantly due to a change in customer behaviour. Businesses have focussed on essential business-as-usual activities and cost saving measures. We do not expect this trend to reverse significantly in the short term. The medium-term impact is harder to forecast. With the introduction of local lockdowns, job cancellation rates could be very high. We anticipate customer resistance, particularly from micro-businesses, where customers are unwilling to accept the power outage during a meter exchange.

Lower than expected penetration of SMETS2 meters could be mitigated by permitting wider deployment of Advanced meters, which deliver equal benefits to SMETS2, drawing on a wider pool of qualified resources and accredited parties. Restrictions imposed on the market result in a lack of choice for microbusiness customers despite Advanced meters being the most widely deployed technology in that sector currently. Consumers and industry would be best served by allowing suppliers to offer *all* their business customers, both micro and non-micro, a choice between Advanced and SMETS metering.

There is a possible COVID-19 impact on the ability of all market participants to become qualified within the Ofgem timeframe. Qualification is generally a lengthy process involving site visits and witness testing by Elexon and auditors. The reduction in site visits, changes to normal business operations, together with travel restrictions and local lockdowns, could result in qualification taking much longer than expected. There is concern that without significant contingency in the qualification timelines, one or more participants could be left without qualification through no fault of their own.

Data access and privacy (chapter 7)

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.

Ideally, real half-hourly data should be used as far as possible, as this will encourage the most efficient operation of the entire energy system, including customer behaviour. However, privacy concerns around the use of half-hourly data are real issues for many customers. Dropping back to daily meter readings in place of half-hourly data and synthesising the half-hourly data using the average load shapes is the next best option: it means that settlement is reasonably accurate, whilst preserving the privacy of the consumer.

Therefore, we agree that this is a proportionate approach where the consumer has opted-out and their meter is capable of remote communication. However, if their meter is not capable of remote communication then there should not be a legal obligation on the party responsible for settlement to collect data at daily granularity because this would involve daily site visits, which would be hugely disproportionate.

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.

The rationale outlined in response to Q11 applies here too. Without knowing statistics on the number of existing customers who have opted-out to monthly granularity of data collection, it is difficult to determine whether it is proportionate to remove that right and require daily granularity instead. If consumers are sufficiently informed and educated on the reasons why their rights are changing then it would appear to be a proportionate change, considering the potential increased benefits it could bring them and industry.

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.

Suppliers should be able to articulate the different data sharing choices available to consumers and advise how each one will impact their ability to maximise the benefits of their tariff and Smart meter. However, we recognise that consumers will likely prefer to take advice on this matter from a source that is independent of their supplier. We recommend that Citizen's Advice are likely best placed to provide such nuanced and impartial advice – a webpage could be an initial point of contact with advisers trained in the issue to act as a follow-up if required.

Consumer impacts (chapter 8)

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

Our own observations on non-domestic load shifting are that there needs to be significant price signals and incentives for businesses to alter their operational activity in meaningful ways. Traditionally this has been driven by seasonal and time of day tariffs alongside DUOS and Triad avoidance in the large I&C space. However, the impact this would have on the operating hours for Microbusinesses and SMEs may mean their appetite for load shifting at traditional peak times is diminished, or further technologies, for example on-site generation and behind the meter storage, are required to capture the benefits.

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.

No comments.

Programme management (chapter 9)

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

We broadly agree with the delivery functions as set out in 9.3 of the MHHS Draft IA.

End-to-end project co-ordination sitting within a "Programme Management Office" will boost confidence in the project's timeline and deliverability.

The role of the "Systems Integrator" will be beneficial for participants who will need to interface with the new central settlement system, its service components and the updated Registration service. This will help to ensure that any new or adapted systems are able to function as required and assist with the smooth cut-over to the TOM. Confirming that all systems can successfully integrate will be vital to the qualification process.

We do not consider that it would be efficient or deliver value to consumers to have a "Party Programme Co-ordinator" that is separate to the PMO. There is significant overlap of their intended responsibilities; Ofgem envisage both as monitoring participant progress and communicating relevant Programme updates. This could cause confusion and ambiguity for industry as well as creating unnecessary additional costs.

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 share Ofgem's concerns over an industry party taking responsibility for some or all the PMO functions and therefore are strongly opposed to this option. Industry parties should be encouraged to assist and lend expertise to the PMO but the risk of conflict of interest is too great if one were to act as the PMO themselves.

Our preferred option is for Ofgem to take an active sponsorship role and lead on the PMO functions. Acting as the SRO, having a holistic view of the programme, its stages and the parties progressing through the various stages of work would ensure the smooth management of what will be a huge undertaking for the electricity industry. Given their position as market regulator, there will be no conflict of interest either internally or externally and will have sufficient authority to take swift compliance action if required.

We agree with the proposal that costs should be met under the current funding structure.

Other (chapter 10)

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

The draft Impact Assessment does not contain sufficient information to enable a robust assessment of Ofgem's proposed approach. Additionally, the Impact Assessment does not consider all reasonable potential options for implementing MHHS. For instance, it does not consider implementing MHHS based on existing HH settlement arrangements, with a 5 year transition period for all MPANs or continuing with EHHS whilst making non-aggregated consumption data more widely available. It is important that the accompanying rationale for why these options weren't considered in the IA is transparent to improve confidence in the assessment overall.

Generally, the costs strike us as low when compared to current system costs. We would like to better understand how the incremental costs were arrived at versus the counterfactual. For example, in the IA, ongoing costs are ~£1 per MPAN per annum. This would not seem to accommodate the costs of operating SMETS1, SMETS2 and Advanced metering systems to deliver interval data on a daily basis, at the high levels of actual data completeness require to deliver MHHS (current HH systems are 95-97% complete at Day+1). We would observe that a majority of these metering systems are configured to deliver monthly reads only at present. Given the counterfactual assumes elective HH does not occur at scale, we are concerned these costs in particular have been understated, or mistakenly treated as one-off investments.

The IA assumes there will be sufficient penetration of Smart meters (85%) by the end of 2024, in line with suppliers' legal obligations. However this ignores current rollout rates which are significantly behind expectations and so cannot be a reasonable basis for concluding an impact assessment. It would be prudent to include an assessment on the impact of lower penetration rates to both the costs and benefits.

Moreover, the level of installed Smart metering is not the only dependency. To deliver the level of daily data required to deliver MHHS all components of the Smart metering platform must be operating at or above 99% service levels individually in order to hit a satisfactory target of actual data in aggregate of say, 95%: that is the electricity meter, the comms hub, the HAN, the WAN, the DCC and the Supplier's DCC adapter, and possibly the agents DCC adapter. Recent performance of the Smart metering system has shown persistent, critical issues at each of these levels. Therefore, the success of MHHS is highly dependent on Ofgem's success in managing DCC transform current performance to meet these kind of performance standards. This may prove to be a formidable challenge. Public data is not available to see to what extent or to what degree SMETS1 or SMETS2 metering systems can deliver to settlement actual data in the 95%+ range. We are concerned further that this KPI is not monitored – it is the bedrock of delivering MHHS. We have noted elsewhere that DCC's incentives need to be better aligned to delivering that kind of service level, rather than being distracted by commercial incentives to expand into other areas (e.g. EV chargepoints, telehealth etc).

We disagree with the portrayal of Data Aggregation as a transitional cost in Table 1. This is because under the DWG's TOM the same Data Aggregation activities will continue to occur within central systems and will therefore be an ongoing cost. Thus, by labelling Data Aggregation as a transitional cost, Ofgem are incorrectly taking account of a cost saving that will not materialise.

Key cost information is either missing, unsupported or too high-level to be useful. "Central Costs" in Table 4 covers costs for DCC, Elexon, Electralink, the ESO and LCCC. These are estimated to be £39.9m for transitional and £0.6m for ongoing. However, there is no detailed breakdown of what comprises those costs and each section of the IA relevant to the parties listed above is lacking in detail. This is disappointing considering the vital and central roles many of them are to play under MHHS. We understand that this is a draft IA, however; we would have expected something more substantial by this point, considering the DWG published their TOM in February 2019. We are concerned that i) industry will not be given sufficient opportunity to scrutinise the costs provided by these parties in the final IA next year and ii) Ofgem's decision-making will be hampered by inaccurate/insufficient cost information.

We are also concerned by the degree to which Ofgem appear to have adjusted the costs provided by respondents. This is amplified by a lack of justification and methodology where such adjustments are made. For instance, paragraph 3.12 refers to "adjustments we have made to some suppliers" without further explanation. Similarly, where Independent Agents' costs have been increased by 25% there is no accompanying rationale for why this number was chosen, which Ofgem acknowledge is likely to be overstated. When submissions already included uncertainty margins, the above creates so much ambiguity that confidence in the assessment is undermined.