



Making a positive difference
for energy consumers

Electricity supply licence holders,
electricity distribution licence
holders, code panels, code
administrators, industry bodies,
supplier agents, consumers and
their representatives, and other
interested parties

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Date: 25 June 2019

Dear interested parties,

**Consultation on access to half-hourly electricity data for settlement purposes:
Ofgem decision and response to stakeholder feedback.**

On 10 July 2018 we published a consultation on access to half-hourly (HH) electricity data for settlement purposes¹. We also held a stakeholder workshop in October 2018 to explore these policy areas in more detail.

This decision document summarises the key points received in response to the 15 questions asked, the key themes we identified from responses, and our decisions on the issues on which we consulted. The appendix addresses each of the questions asked in turn.

Alongside the consultation document we published our draft Data Protection Impact Assessment (DPIA), as well as a report produced for Ofgem by Baringa Partners regarding options for enhanced privacy (see footnote 1).

In total we received 32 responses from a broad range of stakeholders including consumer groups, suppliers, data collectors, data management companies, network operators, metering service providers and innovators. We published the 25 non-confidential responses on our website (see footnote 1).

Market-wide half-hourly settlement (MHHS) will expose energy suppliers to the true cost of supplying their customers in any HH period and place incentives on them to help their customers shift their consumption to times when electricity is cheaper to generate or transport. We are taking forward market-wide settlement reform to facilitate a smarter, more flexible energy system and to empower consumers to take an active role in the energy system transition as the sector decarbonises.

In order to settle customers half-hourly, suppliers need access to their customers' HH consumption data from their smart meter. Under the current rules, a domestic consumer's consent, and suppliers can only access HH data from microbusinesses² for settlement if they have not opted-out. We sought stakeholder views on the future of these rules, as well as on a number of other specific questions, to ensure that we strike the right balance

¹ Link to the Ofgem website [here](#)

² Where non-domestic consumers are concerned, only HH data from those consumers classified as microbusinesses is treated by the Standard Conditions of Electricity Supply Licence as being sufficiently similar to domestic consumption data as to warrant specific controls on data access, over and above existing data protection legislation. The consumption data of non-microbusiness non-domestic consumers is not within scope as it is not considered to be personal data.

between realising the benefits of settlement reform while ensuring that we appropriately safeguard consumers' privacy.

The questions asked in the consultation are addressed in turn in the Appendix, along with a discussion of the responses received and the resultant policy decisions made. For clarity, we have also set out our decisions up front here as follows.

Decisions

Access to data for settlement

1. We confirm our proposed approach that there will be a legal obligation on the party responsible for settlement to process domestic consumers' HH electricity consumption data for settlement purposes, unless the consumer opts out.
2. We confirm our proposed position that there will be a legal obligation on the party responsible for settlement to process microbusiness consumers' HH electricity consumption data for settlement purposes. There will be no opt out possible for microbusinesses in relation to data for settlement purposes.
3. We have decided to rule out pursuing either of the enhanced privacy options as part of the Settlement Reform project.

Existing customers

4. We confirm our proposed position that existing domestic customers with smart meters should continue to have their HH data accessed for settlement purposes only on an opt-in basis, or an opt-out basis for microbusiness customers, until the point at which the consumer decides to change electricity contract.

Forecasting

5. Where suppliers are required to collect and process HH data for settlement purposes, we will also enable them to use this unaggregated HH data for forecasting purposes. Microbusiness customers will not have the right to opt-out of sharing their data for forecasting purposes.

Export data

6. It is our view that the opt-out available for domestic consumers in respect of sharing their half-hourly consumption data for settlement and forecasting purposes should not be available in respect of sharing their half-hourly export data.

Future review

7. We will be reviewing the evidence following the implementation of MHHS to understand if the access to data framework is appropriate for the system wide benefits to be realised. If not, we will amend our decisions as required. We will set out our expected review date when publishing our final decision on MHHS.

Next steps

We recognise the need to ensure that the data sharing framework is designed to facilitate an efficient HHS system, which will in turn support a future smart and flexible electricity system. We are also mindful that the wider system benefits of MHHS, which will be enjoyed by consumers as a whole, may not be fully realised if there is a lack of data available in the system. In the future, it may be important to use all consumers' data, with appropriate safeguards, to maximise these system-wide benefits which accrue to all GB consumers. As such we will keep the framework under review to ensure it remains proportionate, appropriate and allows for the benefits of MHHS to be realised.

There remain some important design aspects of the MHHS system to work through relating to the implementation of the updated data sharing framework, beyond the headline policy decisions set out in this decision letter. These include, for example, the timing of the

transition to the new data sharing framework for domestic consumers, as well as consideration in more detail as to how the opt-out mechanism for domestic consumers will work in practice. We feel it is important that, now that the new data sharing framework has been defined, the transition takes place as quickly and efficiently as possible to prevent a greater number of consumers being subject to the previous rules.

We will be seeking informal stakeholder input on these issues as soon as possible. We want to ensure we set up the system as efficiently as possible, with the aim of facilitating an efficient and timely transition to MHHS to maximise the benefits that we believe will arise.

If you would like to be involved in this process or have any questions or comments on this letter, please contact the Settlement Reform team at Half-HourlySettlement@ofgem.gov.uk.

Yours sincerely,

Anna Stacey

Appendix - Stakeholder views on consultation

This appendix summarises the key views received in response to our consultation questions and at our workshop, the themes we identified from the responses, and the details of our approach on the areas on which we consulted.

1. Options on access to data for settlement

- 1.1. The consultation document set out the options we considered on access to data for settlement purposes, as follows:
 1. Opt in: The party responsible for settlement can process the HH electricity consumption data of a consumer for settlement purposes only, assuming that consumer has opted-in for their data to be collected for that purpose (the status quo for domestic consumers)
 2. Opt out: There is a legal obligation on the party responsible for settlement to process HH electricity consumption data for settlement purposes only, unless the consumer opts out (the status quo for microbusiness consumers)
 3. Mandatory: There is a legal obligation on the party responsible for settlement to process HH electricity consumption data for settlement purposes only. Under this option there is no opt-out
- 1.2. We then considered two 'enhanced privacy' options, designed for use alongside a mandatory framework as described above. These options provide additional privacy to consumers, whilst maximising the volume of HH data available in the settlement system:
 - 4a. Anonymisation: consumers have their data retrieved, processed and aggregated by a centralised body, rather than by suppliers and their agents, with HH data anonymised after settlement processes are complete
 - 4b. Hidden Identity: HH electricity consumption data is retrieved by a new 'pseudonymisation service'. They replace the information which can be used to identify an individual with a new unique identifier – obscuring their identity, as the data can no longer be attributed to individual consumers without a key. This pseudonymised data is then processed for settlement purposes by the usual parties responsible for settlement. All consumers would be settled using their HH data under this option

Question 1: What are your views on Ofgem's assessment of the implications of the options we have set out for access to HH electricity consumption data for settlement?

- 1.3. Most stakeholders agreed that a comprehensive, balanced and complete assessment of the issue has been undertaken. Some stakeholders noted that there are no further possible options to the five proposed (including the two hidden identity options).
- 1.4. Many responses directly acknowledged the wide-ranging benefits of market-wide half-hourly settlement (MHHS). Stakeholders also made clear the need to ensure enough quality data is available in the new settlement system in order to achieve these benefits. Many stakeholders also agreed that the current opt-in regime for domestic consumers is unlikely to be sufficient to achieve the amount of data required to deliver MHHS.
- 1.5. Most stakeholders agreed that opt-out will increase the number of metering points being settled half hourly relative to opt-in. However, there was disagreement as to whether this would be sufficient to realise the benefits, with many stakeholders stating mandatory as their preferred approach.

- 1.6. A number of responses noted the importance of protecting consumer rights when collecting HH data. They felt it is crucial that suppliers ensure that customers are fully aware of why their data is needed and what their supplier is and is not permitted to do with it. This is already provided for in data protection legislation, including the General Data Protection Regulation (GDPR). Alongside this, some stakeholders stated that, with an opt-out framework, suppliers should also clearly outline the implications to their customers of opting-out, ie if a consumer does not share their data for settlement, what the effect on them and on the public good is likely to be.

Current regulatory framework

- 1.7. Some stakeholders made the point that settlement should be considered as a regulated activity. They said that when the Data Access and Privacy Framework (DAPF) was established³ by DECC, it was acknowledged that energy suppliers would require access to energy consumption data in order to effectively undertake certain regulated activities⁴. These stakeholders suggested that, if Ofgem is confident that settlement reform will result in significant consumer and other benefits, the licence conditions and code provisions, which together make up the DAPF, should be amended to allow collection of HH data for settlement purposes as a regulated duty.
- 1.8. One supplier felt that, if the DAPF did not exist, suppliers would be able to access HH data for settlement purposes as a legitimate interest under data protection legislation in order to ensure efficient purchasing, and therefore Ofgem should consider amending the framework to this effect.
- 1.9. One stakeholder noted the importance of recognising why exceptions / exemptions are present in both GDPR and the DAPF. These exist to protect instances where individuals may choose to withhold data from the system that would otherwise serve the public interest. The response highlighted settlement as a good example of this, and stated that the rules on access to data for settlement purposes should therefore take into account the implications on the wider public interest of the data not being shared.

Ofgem response

- 1.10. The licence condition (Condition 47 of the Standard conditions of electricity supply licence (SLC)) only allows for data to be collected at granularity no more detailed than daily for the purpose of fulfilling certain regulated duties⁵. Defining 'processing of data for settlement purposes' as a regulated duty would therefore still not allow for HH data to be collected for this purpose.
- 1.11. BEIS reviewed the DAPF in 2018 and deemed it appropriate in terms of it meeting its three main objectives – safeguarding consumer privacy, ensuring appropriate consumer communications are in place, and finally facilitating the use of data to drive innovation and improve system efficiency.
- 1.12. We do recognise the wider public interest arguments in support of allowing HH data to be shared for settlement purposes and have taken them into consideration during our decision-making process.

Definition of settlement

³ The DAPF, link [here](#), 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.

⁴ The DAPF allows for access to data for the purposes of fulfilling certain defined regulated duties only at daily granularity. There is no provision in the DAPF allowing for HH granular data to be collected for any purpose, unless the consumer provides explicit opt-in consent.

⁵ Link to the SLCs [here](#)

- 1.13. A number of stakeholders stated that they would welcome a more explicit definition of what constitutes 'data for settlement purposes' in the Target Operating Model (TOM) once the design work is complete, noting that 'settlement processes' should not be constrained due to the definition being too narrow. For example, one stakeholder noted that a supplier should be permitted to use HH data to reconcile and resolve any errors in the settlement process.

Ofgem response

- 1.14. As part of our detailed design work we will be considering the final definition of 'for settlement purposes' in the context of data access rules. What uses of this data are permitted under the settlement privacy framework will be set out as part of the final TOM, which is being developed by the industry-led Design Working Group (DWG), chaired by ELEXON⁶. Our decision on the TOM will be taken using our Full Business Case.

Synergies with data rules governing network companies

- 1.15. One response referred to the fact that network companies are permitted to access HH data for their own regulated purposes, provided Ofgem approve their data privacy plans, and to Ofgem's recent approval of Western Power Distribution's privacy plan⁷. The stakeholder felt that consumers would likely regard access to their data by network companies and by suppliers for settlement purposes as similar issues, so in their view, it is not clear why different approaches are being taken regarding access to customer HH data for different purposes.

Ofgem response

- 1.16. Whilst recognising the point made, we feel that the two purposes for which HH data is collected are distinct and that the risks and benefits for each need to be balanced separately when defining access rules, which is why separate provisions exist in the DAPF for suppliers and network companies.
- 1.17. It is appropriate that privacy safeguards for both supplier and network companies are designed with consideration of how the data would be used by each party in each case. As aggregated / anonymised data is regarded as sufficient for network companies to realise the benefits of the data, the requirement to submit and have approved a privacy plan in order to access this level of data was regarded as appropriate. We have considered whether a similar approach for treatment of settlement data would be appropriate in questions four to six below, including consideration of the costs and benefits.
- 1.18. Research has indicated that consumers are most concerned about the sharing of their data leading to unsolicited marketing⁸, or that it will result in them being charged more money⁹. Given that consumers do not have a direct commercial relationship with the network companies, the means by which HH data could potentially be misused by suppliers and network companies are very different.
- 1.19. It would not be practicable for Ofgem to review privacy plans for all suppliers, as we are required to do for network companies, before approving their access to HH data. Furthermore, it would create the risk that suppliers could opt out of MHHS by submitting a privacy plan that doesn't meet the necessary standards for approval.

⁶ The ELEXON-chaired DWG consulted on their preferred TOM in February 2019. Their suggested definition of 'data for settlement purposes' is provided on page 9 of the report describing the preferred TOM, link [here](#). Delivery of the final TOM will follow.

⁷ Link to the Ofgem website [here](#). As set out in the DAPF, energy networks are permitted to access consumption data at greater granularity than monthly if they implement procedures to mask the identity of the individual consumer / premise, and if Ofgem approves these privacy procedures on the basis that they meet the requirements of Electricity Distribution Licence Condition 10.A.4. This is set out on page 9 of the DAPF, link [here](#).

⁸ Link to BEIS response to their consultation on smart meter data access and privacy [here](#)

⁹ Link to Ofgem Consumer Panel 2018 report on issues relating to HH settlement [here](#)

Wider data review

- 1.20. A number of stakeholders expressed dissatisfaction that the consultation was limited to access to data for settlement. It would be preferable in their view if the review was wider in scope and included access to data for other purposes, including billing, all together as one package. Another stakeholder highlighted the potential wide-ranging benefits of third parties, including academics and policymakers, having access to HH data for public interest and/or innovation purposes, and recommended that consideration should be given to how any decisions made now in respect of settlement may therefore set precedent and influence the development of the wider smart meter data sharing framework in the future.

Ofgem response

- 1.21. Data use purposes other than for settlement and forecasting, for example for suppliers' marketing strategies or for billing their customers, were outside the scope of our consultation. As noted, BEIS reviewed the broader DAPF in 2018 covering access to data for uses other than for settlement purposes, and considered that the scope of the framework remained appropriate.

Further research

- 1.22. Stakeholders provided suggestions of further research that Ofgem could undertake to better understand the impact of the data sharing decision:
- A willingness to pay study to assess the value that consumers place on protecting, or not sharing their data. This could then feed in to a more informed social cost-benefit analysis (CBA) study to assess whether the wide-ranging benefits of sharing all data would outweigh the aggregate cost of the privacy concerns held by a proportion of consumers.
 - A study to assess the correlation between the volume of HH data available in the system versus the system-wide benefits achieved in monetary terms, for example by testing a range of scenarios of opt-out rates to understand the effect on achieved benefits. This could then inform what the possible opportunity cost would be of opt-out relative to mandatory.
 - One stakeholder noted that, given that the cost of a separate settlement system for those opting out would likely be socialised across all consumers, it would be prudent for Ofgem to assess the possible redistribution of costs under different opt-out scenarios. This would inform to what extent those not opting out faced detriment because of those who are choosing to opt out.

Ofgem response

- 1.23. We will consider what further research is necessary in order to inform our policy decisions in future. As noted in our consultation (point 3.42), we propose to review whether decisions on access to data continue to strike the right balance between privacy and enabling the system and consumer benefits to be realised. We will consider carefully what further evidence is required to inform a future review, noting that, in the absence of real life data, it will not always be possible to collect meaningful data to inform certain policy decisions through research, trials etc.

Question 2: Do you agree with Ofgem’s current view that the best balance could be achieved by a legal obligation to process HH electricity consumption data for settlement provided the consumer has not opted out, and if so, why? If you have a different view, please explain which option you would prefer and the reasons for this.

- 1.24. As set out in our consultation, our proposed approach was for an opt-out framework for domestic consumers, as we felt it provided the right balance between preserving consumer choice over sharing their data and realising the system benefits associated with MHHS.
- 1.25. We received a range of responses offering different perspectives on all three options.

Views in favour of retaining opt-in

- 1.26. Two stakeholders, one supplier and one consumer group, favoured retaining the current opt-in arrangement.
- 1.27. The point was made that some consumers do hold concerns over data privacy and who is able to access their data, and that moving away from an opt-in arrangement would result in a proportion of such privacy-minded consumers ending up on whatever the default setting is, which may be that their data is being shared. The argument was made that opt-in should be retained so consumers are able to make informed choices about how they share their data, which is easier if the default is that their data is not accessible without their consent.
- 1.28. One stakeholder cautioned against assuming that the current relatively low opt-in rates will provide an accurate reflection of future opt-in rates under MHHS, given that we are still in the early stages of the development of smart enabled products and services for consumers. Both stakeholders made the point that opt-in rates could be improved with better and wider-targeted campaigns to engage consumers in the benefits of sharing their data, which would mitigate against the risk of not enough data entering the system for the benefits of HHS to be realised.

Views in favour of opt-out

- 1.29. We also received a number of responses in support of our proposed opt-out approach. Some stakeholders agreed that opt-out strikes the balance between facilitating the realisation of the benefits of HHS, whilst acknowledging that some consumers do have data privacy concerns. They felt that allowing consumers to retain the choice over data sharing is appropriate. The point was made that removing this choice may result in consumers instead refusing to accept a smart meter in the first place, thereby holding them back from realising some of the other benefits that a smart meter brings, such as accurate billing and access to real-time electricity consumption information through an in-home display (IHD). One response noted that mandatory access removes the consumer’s leverage, in that suppliers will not be incentivised to offer any benefit to a consumer in exchange for their data.
- 1.30. One consumer group expressed the view that it was difficult to justify a mandatory approach without any evidence to suggest it is necessary, as firm data does not exist on what percentage of consumers will opt out and whether it will be significant enough to impact on the benefits of settlement. Coupled with that, the point was made that there is also no firm data on what percentage of HH data entered into the system would be required to achieve the benefits.
- 1.31. The issue was raised around what granularity of data consumers should be permitted to opt-out to, if this option was taken forward. Under the current DAPF rules consumers can opt-out to monthly meter reads, except where data is required for regulated purposes, for which energy suppliers can access daily readings.

Stakeholders noted that if Ofgem proceed with an opt-out, this should be to daily granularity or finer (such as half-day), allowing suppliers to perform more accurate estimates of allocation to half-hourly settlement periods than data at monthly granularity would allow. Daily data was suggested as being of less concern to a consumer than HH from a privacy perspective, so stakeholders considered that this approach would be proportionate.

Views in favour of mandatory

- 1.32. Approximately half of all total stakeholders, across a wide range of stakeholder groups, disagreed with our proposed opt-out approach and instead stated mandatory to be their preferred option. The main reasons cited were around the need to ensure as few gaps as possible in the data going into settlement. They felt that gaps would compromise the realisation of the benefits of MHHS as well as the wider benefits of smart meters.
- 1.33. The concern was raised that some consumers may, if given the choice, opt out 'just to be safe', even if they do not hold explicit privacy concerns. Some stakeholders stated that some consumers might also opt out without an understanding of settlement and the benefits that MHHS will bring, and therefore be unable to make an informed choice. It was noted that this may particularly be the case for certain demographics, such as the elderly. Some stakeholders considered that offering an opt-out ultimately represents a disproportionate response to what they felt are relatively modest privacy concerns held by a small proportion of the population.
- 1.34. Stakeholders offered differing views around the percentage of consumers who would opt out if given the choice. Some stakeholders believe that it would be large enough to significantly distort settlement and act as a barrier to the development of new tariffs and other innovative products. For example, one supplier noted that 18% of their customers were choosing to opt-out of allowing access to their daily data. There is a risk expressed by some stakeholders that opt-out rates would likely be higher for HH data than for daily data, as consumers would regard it as more personal. One supplier noted that, in their opinion, 10-20% of consumers opting out of sharing their data would significantly distort settlement. Others however believed that relatively few would choose to opt-out.
- 1.35. Some stakeholders had concerns that the development of a separate system necessary to accommodate a significant number of non-HH (NHH) customers would be expensive and inefficient. Some stakeholders also felt that it would be unfair for the cost of any such system to be socialised across all consumers, including those willing to share their data. A number of stakeholders made the point that Ofgem should not risk impeding the wide-ranging benefits of MHHS by shaping future data access rules around the anticipated small number of customers who have data privacy concerns.
- 1.36. A number of suppliers expressed concern over the cost and complexity of the conversation an opt-out model would require them to have with their customers regarding settlement and their data sharing choices. They were concerned that this could cause confusion and risk consumer disengagement. One large supplier noted that, in their experience, many consumers assume suppliers collect the data anyway, only to then feel challenged when asked to share it. Some stakeholders felt that explaining to consumers that suppliers can only use the data for settlement and not for marketing or billing will be complex and costly.
- 1.37. Several stakeholders recognised the risk that some consumers with a high-peak profile may opt out of sharing their data for settlement, resulting in a large proportion of these users being settled on a traditional NHH profile and distorting the settlement process. Some responses also noted that suppliers could game the system by encouraging suspected high-peak users to opt out of sharing their data for settlement, otherwise they will be more expensive to supply. The only solution suggested in mitigation was for a mandatory regime. This point is addressed in more detail in the response to question three.

- 1.38. Some stakeholders noted the risk that offering an opt-out may inadvertently create a barrier to the development of innovative products enabled by HHS. One example provided was that import / export time-of-use (ToU) tariffs currently suffer from high costs of development and administration, resulting in a relative lack of offerings emerging voluntarily. These stakeholders felt that only complete access to market-wide HH data for settlement purposes will fully incentivise the development of these products and help to realise the full benefits across the market. One stakeholder also raised the concern that suppliers will not be able to develop their innovative tariffs and other offerings without access to data for development purposes. Some responses also noted that, in the presence of an opt-out and where suppliers are offering products and benefits in return for the consumer sharing their data, a two-tiered market may emerge where those who share gain, and those who don't lose out.

The future

- 1.39. A number of stakeholders expressed the view that Ofgem should ensure the TOM is flexible enough to support any change in the data access policy approach in the future, if that was deemed appropriate. The point was made that the policy decisions should be reviewed as necessary in order to ensure they continue to represent a proportionate approach.

Ofgem response and decision:

- 1.40. We do recognise the strong arguments in support of mandatory access to data for settlement, particularly those relating to the wider public benefit of an efficient HHS system supporting a smart and flexible electricity system. We are also mindful that the benefits of HHS may not be fully realised, both for consumers and the wider energy system, if significant numbers of consumers decide to opt-out.
- 1.41. On balance however we feel that, as we do not currently have evidence to demonstrate that a mandatory approach is required to achieve the benefits of HHS, an opt-out approach is proportionate at this time. We will therefore be proceeding with the proposed approach outlined in the consultation document that there will be a legal obligation on the party responsible for settlement to process domestic consumers' HH electricity consumption data for settlement purposes only, unless the consumer opts out.
- 1.42. We agree with the view shared by some stakeholders that, where a consumer has opted out of sharing their HH data, suppliers should access data for settlement purposes at daily granularity. We think that this is the right approach, in line with current rules governing data required for regulated purposes.
- 1.43. As noted earlier and in our consultation, we are committing to a future review of our policy decisions to ensure they remain proportionate. As the implementation of MHHS proceeds, we would expect to have access to information on the proportion of consumers opting out, why they are opting out, and the effect this is having on the efficiency of the settlement process. We will also have more information on how suppliers, consumers and the retail electricity market more broadly are responding to the new signals put in place by MHHS and any wider changes in the market (e.g. the outcomes of the Access & Forward Looking Charges Significant Code Review (Access SCR)). This will enable us to evaluate the effectiveness of the new data sharing requirements and consider whether any amendments are necessary in order to realise the benefits of HHS whilst safeguarding privacy. We believe that it would be difficult to obtain data of this nature through research prior to the implementation of MHHS.
- 1.44. We intend to undertake such a review when sufficient appropriate evidence is available to draw a meaningful conclusion. It is important that we should define the timing of the review in the context of the implementation of MHHS, which is being considered in the design of the TOM. We will therefore set out our expectation on

the timing of the expected review when publishing our final decision on MHHS alongside the final TOM and Full Business Case (FBC).

Question 3: There is a risk that consumers who use particularly high volumes of electricity at peak could choose not to be HH settled and therefore disproportionately increase energy system costs, which would then be shared by all consumers. Do you have any views on whether or how we should address this issue?

- 1.45. Some consumers who consume large amounts of electricity during peak periods may choose to opt out of sharing their data, and be settled on NHH basis. As energy system costs are shared amongst all consumers, there is a risk that this could result in increased costs for all consumers, including those that do not opt-out. This could undermine the realisation of the benefits of MHHS. We sought views from stakeholders on how to address this issue.
- 1.46. A number of stakeholders recognised the risk of high peak consumers opting out of sharing their HH data for settlement.¹⁰ The main concern raised was that high-peak consumers opting out would result in imbalance costs to suppliers, which some stakeholders felt would be unfair to socialise across all consumers, including those who had not opted-out and were contributing to a more efficient settlement system. Stakeholders noted that these imbalance costs would be greater per customer supplied than is currently the case, if the opt-out customers had on average a more high-peak consumption profile, which was not accounted for in the profiles used to settle NHH customers. It was noted that this effect will become more pronounced as more electric vehicles (EVs) enter the market, which usually increases peak time demand as most consumers are likely to charge them during the evening peak.
- 1.47. Some responses however noted that the risk of high peak consumers deliberately opting out was small, as most consumers would not be engaged enough in the issue of settlement to react in this way. One consumer group noted that, at this stage, it was unclear as to how many high peak consumers would choose to opt-out of sharing their data, and therefore whether this will even be a problem that needs addressing. The response pointed out that decisions on whether this needs mitigating should only be made based on evidence that this was indeed an issue that was distorting the settlement process and threatening the benefits being realised.
- 1.48. The same response also noted that, when designing mitigation strategies to counter this effect, we must be aware of the potential impact on vulnerable consumers, particularly those who are high peak users and may be unable to alter their consumption patterns. The point was made that it would be impossible to differentiate consumers who strategically opt-out to avoid being HH settled from those opting out for privacy reasons, a proportion of whom may be vulnerable and unable to load shift.
- 1.49. Some stakeholders noted that, even if data sharing was mandated, high-peak consumers who do not want to be HH settled could simply refuse a smart meter anyway.

¹⁰ Whilst opting out of sharing their data for settlement would not change the basis on which the consumer is billed, our consumer research found that a fear of increased electricity bills is a major reason for customers having concerns about sharing their HH data.

Mitigation

- 1.50. A large number of stakeholders considered that the only way to prevent this behaviour was to mandate the sharing of HH data for settlement purposes for all consumers.
- 1.51. A number of stakeholders felt that resulting increased energy system costs should be apportioned only onto those that had opted-out. In a similar vein, some stakeholders questioned whether charges to consumers choosing not to be HH settled should reflect the higher costs of maintaining NHH profiles and, potentially, the higher average peak demand amongst these consumers.
- 1.52. One supplier was seeking reassurances that they would be permitted to offer improved tariffs only to those consumers that had agreed to share their HH data.
- 1.53. A number of stakeholders made the point that we need to beware of relying on HH data from non-opted out customers to shape NHH profiles, as it may not be reflective of an opt-out customer's usage. One response suggested mandating the sharing of HH data for load shaping purposes, even if the consumer had opted out of sharing their data for settlement. This would ensure that NHH profiles were more reflective of the average consumption profile of an opt-out customer. Another suggestion made was to sample data from a selection of opt-out customers, with their consent, in order to build more accurate NHH profiles. This would be similar to the approach under the current system.
- 1.54. If it was not feasible to collect this data, it was suggested that NHH profiles could instead be manually modified to move load from off-peak to peak times, to account for what we assume the 'new' average NHH customer profile to be.

Tariff Offerings

- 1.55. Aside from the potential issue of high peak consumers disproportionately opting out, stakeholders also noted the risk of suppliers potentially favouring taking on customers who they know or suspect to be high off-peak consumers who are therefore cheaper to supply. This may result in suppliers targeting their data sharing messaging to specific consumers accordingly. One large supplier identified the risk that suppliers may target different tariff offers to certain consumers in order to limit their exposure depending on the consumer's data sharing preferences, for example expensive flat tariffs to suspected high peak opt-out consumers.
- 1.56. Similarly, the risk was raised that suppliers may encourage those consumers who they suspect to be high peak users to opt-out of sharing their data, therefore making them cheaper to supply.

Ofgem response

- 1.57. As noted in the response to Question 2, we will be proceeding with the approach of domestic consumers having an opt-out choice, including in respect of data used for load shaping. We will however continue to monitor the data and have committed to reviewing this decision when appropriate evidence is available. We will take the points made in response to this question into consideration when designing our review.
- 1.58. In terms of profiling NHH consumers, the DWG preferred TOM¹¹ sets out that the new load shapes under MHHS are based on all HH data available in the system, subdivided by GSP, by whether the meter is for a domestic / non-domestic site and whether it is an active import / active export site. This will result in a total of 56 individual load shapes. There are possibilities in the future to revise the load shapes to account for other factors, for example whether the meter site is for an EV user, heat pump user etc.

¹¹ Link to preferred TOM report [here](#)

- 1.59. Suppliers must develop their offerings in accordance with the relevant licence conditions, for example SLC0 – Treating Domestic Customers Fairly, which sets out Standards of Conduct including for vulnerable consumers¹².
- 1.60. We would also make the point again that, unless the customer has opted in to share their HH data for marketing or billing, the data cannot be used for these purposes. As an example, suppliers are not permitted to use data collected for settlement purposes to develop tariff offerings / market specific tariffs to those customers, or to decide how much to charge them.

¹² Link to the SLCs [here](#)

2. Enhanced Privacy

2.1 Questions four to six focussed on the two potential enhanced privacy options:

4a. Anonymisation: consumers can choose to have their data retrieved, processed and aggregated by a centralised body, rather than by suppliers and their agents, with HH data anonymised after settlement processes are complete

4b. Hidden Identity: HH electricity consumption data is retrieved by a new 'pseudonymisation service'. They replace the information that can be used to identify an individual with a new unique identifier, in turn obscuring their identity as the data can no longer be attributed to individual consumers without a key. This pseudonymised data is then processed for settlement purposes by the usual parties responsible for settlement. All consumers would be settled using their HH data under this option

Question 4: What are your views on the potential enhanced privacy options?

Anonymisation

- 2.2 Many stakeholders did not respond on the proposal of anonymisation, or simply stated that they were not in favour of it. There were no responses received in favour of the anonymisation approach that we put forward.
- 2.3 A few stakeholders noted the point made in the consultation that true anonymisation was impossible. Some stakeholders agreed that it would raise issues for suppliers when validating data and identifying / tracing data errors. It was noted that it would also result in errors being more complex and time-consuming to resolve, if data is aggregated and anonymised and cannot simply be traced back to MPAN level. One large supplier noted that this would render the initial validation process absolutely critical, as correcting any errors later would be impossible once the data was anonymised. This is in contrast to the current system where suppliers are able to reconcile the volume of electricity being settled with actual billed consumption at metering point level.
- 2.4 One stakeholder highlighted the point outlined in the DPIA that Ofgem's consumer survey indicated that consumers would be less willing to share their data with an independent centralised body than a supplier, so introducing a party responsible for anonymising the data would be less comforting to many consumers from a privacy perspective anyway.

Hidden Identity

- 2.5 The majority of stakeholders were not in favour of hidden identity, considering that the costs and complexity involved would be disproportionate to what they saw as the modest privacy concerns of consumers. Some stakeholders thought that pseudonymisation was likely to be costly, though some noted that these costs are not fully understood at this stage. Other stakeholders believed that it would be complex and therefore very difficult to explain to consumers, which may result in confusion and disengagement. It was also noted that introducing any additional complexity into a system that many consumers do not fully understand already would not be reassuring to them.
- 2.6 A few stakeholders noted that centralising all consumer data into one repository creates a single point of failure and the risk that all data may be leaked in one event.
- 2.7 Those in favour noted that pseudonymisation provided a logical aid to a mandatory approach, allowing all data to be included within settlement whilst addressing consumer privacy concerns. One large supplier believed it would be straightforward

and cost-effective to design and implement, and should be applied to all domestic and non-domestic consumption and export data.

- 2.8 One large supplier called for further research to understand if pseudonymisation would materially increase trust amongst consumers who may be minded to opt-out of sharing their data. It was suggested that a cost-benefit analysis be performed that takes account of all identifiable costs and benefits before any decisions are taken.

Ofgem response and decision

- 2.9 We have decided to rule out pursuing either of the enhanced privacy options, as we believe that potential benefits would be outweighed by the cost and complexity of implementation. Whilst recognising that at present we only have qualitative information about these costs, we think the evidence we have seen suggests that they are likely to be significant enough to outweigh the potential benefits. We also agree with stakeholders that there is a risk that consumers may well be confused rather than reassured by the implementation of a hidden identity solution that would undermine the potential benefits of such an approach.
- 2.10 Companies in possession of personal data are obliged to comply with data protection legislation. As an example, Article 5 GDPR¹³ – ‘Principles relating to the processing of personal data’ paragraph 1(f) states that personal data ‘shall be processed in a manner that ensures appropriate security of the personal data, including protection against unauthorised or unlawful processing and against accidental loss, destruction or damage, using appropriate technical or organisational measures (‘integrity and confidentiality’)’. We would expect that such companies would therefore consider implementing hidden identity solutions within their own systems, as they judge to be appropriate.
- 2.11 We note the risk that centralising all disaggregated HH data in one repository creates a single point of failure. Data security will be considered as part of the assessment of the overall TOM, and will be taken into account when making our final decision on MHHS.
- 2.12 Note, we published a letter in November 2018 outlining our least regrets steer on enhanced privacy to the industry-led Design Working Group (DWG), in order that the design of the Target Operating Model (TOM) could be progressed¹⁴. This decision therefore confirms our previously communicated position that the TOM be designed without these options.

Question 5: If we decided to further consider the hidden identity option, do you think data from all consumers should be pseudonymised or only data from consumers who have not chosen to share their HH data for settlement?

- 2.13 Many stakeholders did not respond to this question, whilst a number of others noted again that they did not support the implementation of either form of enhanced privacy option for any consumers.
- 2.14 The responses that we did receive were mainly in favour of hidden identity, if applied, being implemented for all consumers regardless of their data sharing preferences. This was considered as being fair and easy to understand for all consumers as well as being simpler and more efficient to implement, as only one system was required to handle all data. Stakeholders also raised the point that operating one system for all consumers would also avoid the cost and complexity arising from processing opt-in or opt-out requests.

¹³ Link to the full GDPR text [here](#)

¹⁴ The letter was published [here](#) on the Ofgem website

- 2.15 One stakeholder noted that operating one system is safer, as the risk of cross-contamination, where the accidental processing of data without hidden identity of an opt out consumer, is prevented.
- 2.16 We did receive some responses who favoured implementing any hidden identity solution only for those consumers who had opted out. Some suppliers were concerned that customers who were otherwise content for their data to be accessed might suffer from lower service if their data was instead subject to hidden identity.
- 2.17 A few stakeholders noted that they would favour whatever system was more cost effective to operate.

Ofgem response

- 2.18 As noted in the response to question four, we will not be pursuing either of the enhanced privacy options.

Question 6: Please provide any information you can about the likely costs and benefits of these options.

- 2.19 Again, many stakeholders did not respond to this question. A number of others noted that costs were either impossible to evaluate at this stage, or simply that they would likely be significant.
- 2.20 One response noted that the costs were likely to be largely administration related and will correlate closely with switching rates. It was noted that these costs would therefore be likely to increase with the development of a faster switching framework.
- 2.21 One large supplier estimated the incremental cost of each enhanced privacy option to be approximately 0.5-1% of the total cost to them of implementing market-wide HHS. It was noted that this cost estimate does not factor in any additional charges resulting from decisions made as part of the TOM design, such as any centralisation of agent functions, setting up billing systems etc.

Ofgem response

- 2.22 As noted in the response to question four we will not be pursuing enhanced privacy. We do however note the points made by stakeholders and took them into consideration in taking our decision on enhanced privacy.

3. Microbusinesses

Question 7: Do you think that there should be a legal obligation to process HH data from all smart and advanced metered microbusiness customers for settlement purposes only? If you disagree, please explain why.

- 3.1. Our proposed position in our consultation was that there should be a legal obligation on the party responsible for settlement to process HH data from all smart and advanced metered microbusiness customers, for settlement purposes only. Unlike for domestic consumers, we did not propose an opt-out. This was largely because we felt that microbusinesses' privacy concerns are less significant than domestic consumers', whereas the system benefits from microbusinesses are potentially greater on a per unit (individual meter level) basis. We therefore judged the balance between system benefits and privacy concerns to have a different outcome. We wanted to seek stakeholder views to understand if this was the proportionate approach.
- 3.2. A large number of stakeholders agreed that privacy risks for microbusinesses were likely to be less significant than for domestic consumers. Many responses considered that, in their view, the benefits to the system of mandating access to HH data from microbusinesses for settlement purposes far outweigh what they saw as the minimal privacy concerns. Many of the reasons in support of a mandatory regime for domestic consumers (question 2) were also raised in relation to microbusinesses.
- 3.3. Suppliers are required by licence to take all reasonable steps to identify whether a non-domestic customer is a microbusiness. One stakeholder noted that it is often difficult for suppliers to distinguish between microbusinesses and SMEs and that, if they are unable to determine the status of a non-domestic consumer, often class them as microbusinesses by default to be safe, as microbusinesses are afforded a greater degree of regulatory protection than SMEs. This may lead to some SMEs in Profile Classes (PC) 1-4, for whom there are no restrictions on access to their data as it is not considered personal data, also being swept up into an opt-out regime unintentionally.
- 3.4. Some stakeholders felt that microbusinesses should be treated consistently with small and medium-sized enterprises (SMEs) in PC 5-8, for whom HH data sharing for settlement purposes is already mandatory under BSC modification P272¹⁵.
- 3.5. One consumer group noted the difficulty that suppliers sometimes have in differentiating between domestic and microbusiness consumers. The point was also raised that some microbusinesses operate from domestic premises, in which case having different regulations regarding data access for both groups could be problematic.
- 3.6. A number of stakeholders favoured combining mandatory access to data for microbusinesses with pseudonymisation.

Ofgem response and decision

- 3.7. On balance, we confirm our proposed position that there should be a legal obligation on the party responsible for settlement to process HH data from microbusinesses for settlement purposes. Unlike domestic consumers, microbusinesses will not have the option to opt-out of sharing their data for settlement purposes. We feel that this is a proportionate approach, particularly given the system benefits that using HH data for settlement can enable, and the lack of evidence we have that would indicate that microbusinesses have significant privacy concerns over their HH data. We note that our decision does not impact on the rights of microbusinesses to opt out of sharing their data for other purposes, as set out in the DAPF.

¹⁵ Link to Ofgem website [here](#)

- 3.8. We note the concerns raised that a number of microbusinesses operate from domestic premises. However, where these households are on a domestic supply contract, they would be entitled to an opt-out, as per our response to question two.
- 3.9. As outlined in our response to questions 4 to 6 however, we are not pursuing any of the enhanced privacy options and we consider that the same reasoning applies for microbusiness customers as for domestic.
- 3.10. Note, this only applies to the microbusiness component of Profile Classes (PC) 3-4. BEIS estimate that approx. 70% of non-domestic consumers within PC3-4 are microbusinesses. For the remaining non-domestic consumers in PC3-4, their data is not considered personal (of non-domestic consumers, only data from microbusinesses is likely to be 'personal data' in the context of the data protection regime), so suppliers will automatically be obliged to access their HH data for settlement purposes once MHHS is implemented¹⁶.

Question 8: Are there any issues relating to access to data from microbusinesses that you think Ofgem should be aware of?

- 3.11. A few stakeholders noted that data-related concerns for microbusinesses were usually related more to commercial confidentiality. This underlines the need to ensure that suppliers handle consumption data from Microbusiness consumers securely¹⁷.
- 3.12. One supplier noted that there may be contractual issues to manage if microbusinesses have already contracted their own data retrieval service.
- 3.13. Microbusinesses do not always have cost-free access to their smart meter data. One response noted that this could undermine a microbusinesses' ability and motivation to engage with their energy use. In order to ensure microbusinesses are able to benefit from settlement reform therefore, it was recommended that Ofgem review current practices to understand whether they allow for microbusinesses to make informed choices about their usage and/or switching decisions.
- 3.14. Other stakeholders made points related to issues around system design, which we will take into consideration in our TOM design workstream.

Ofgem response

- 3.15. We have drawn these suggestions to the attention of other Ofgem and government initiatives relating to microbusiness energy data, and will continue to work closely with these initiatives going forward. We want to ensure that the system for MHHS allows microbusiness consumers to benefit and be able to manage their energy more effectively in a future smart, flexible world. We will consider all responses received here as part of our more detailed design work on MHHS.
- 3.16. We separately issued a Call for Evidence on the consumer impacts of MHHS, including for microbusiness consumers¹⁸. The Call for Evidence closed on 29th March 2019.
- 3.17. BEIS published a consultation on access to non-domestic smart meter data, which included considerations around whether non-domestic consumers should have free

¹⁶ PC 1-2 are domestic consumers, whilst PC5-8 (larger non-domestic) are already under mandatory HHS through P272.

¹⁷ Aside from the requirements under GDPR, the licence conditions (SLCs) contain various obligations on suppliers regarding their treatment of smart meter data. Of particular note is SLC 0A, which requires that a supplier, in relation to microbusiness consumers, "behaves and carries out any actions in a fair, honest, transparent, appropriate and professional manner". Link to the SLCs [here](#).

¹⁸ Link to Ofgem website [here](#)

access to their smart meter data, and how suppliers should present this data to their customers¹⁹. The consultation closed on 21st February 2019.

- 3.18. We have also committed to undertaking a strategic review of the microbusiness retail market commencing in 2019, with a view to improving the experience of microbusinesses participating within the energy market. We published our opening statement on the review in May 2019²⁰.

¹⁹ Link to BEIS website [here](#)

²⁰ Link to Ofgem website [here](#)

4. Customers with existing smart or advanced meters

Question 9: We propose that domestic and microbusiness consumers retain the level of control over sharing their HH electricity consumption data that was communicated to them at the point at which they accepted a smart or advanced meter, until the point at which the consumer decides to change electricity contract. Do you agree this is the best approach?

- 4.1. Customers are currently accepting smart / advanced meters on the basis of an opt-in data sharing regime for domestic customers or an opt-out regime for microbusiness customers in relation to energy supplier access to half-hourly consumption data. We outlined our proposed position that these consumers should retain the level of control they were entitled to at the point at which they accepted their smart or advanced meter, until they switch electricity supplier or contract²¹, at which point they will be subject to the new data sharing rules.
- 4.2. The majority of stakeholders did not agree with our position, instead arguing that these customers be switched across to the same arrangement as all new consumers accepting smart / advanced meters at the point at which it takes effect. Many stakeholders felt that this data sharing arrangement for settlement purposes should be mandatory for domestic consumers, consistent with their position in response to question two.
- 4.3. A number of stakeholders noted that many consumers do not engage with the energy market (26% of domestic consumers switched supplier or tariff in 2018²²), so a significant proportion may remain on opt-in for an extended period of time, potentially delaying or compromising the system wide benefits of settlement reform being realised. It was believed that the number of disengaged consumers would be likely to increase under the default tariff cap which may act to disincentivise switching.
- 4.4. Some stakeholders made the point that changing the data sharing rules for existing customers could be managed simply through changes to the terms and conditions of their contracts, which they consider is a not uncommon occurrence.
- 4.5. One large supplier suggested that, if the opt-in regime was retained for existing consumers, a backstop date could be defined, by which point suppliers would be obliged to have contacted consumers, who have not engaged in the meantime, regarding their data sharing options. It was noted that this date should be some time after the main rollout, in order to give suppliers the opportunity to manage this contact as part of their existing customer contact cycle, reducing costs and decreasing disruption for the end customer.
- 4.6. Another large supplier noted that, if the proposed position of opt-out for new domestic consumers is implemented, allowing existing smart meter customers to remain on an opt-in regime would not be necessary; if these consumers do not wish to share their data, they will be entitled to opt-out anyway.
- 4.7. Some stakeholders did agree with our proposal, noting that our assessment was pragmatic and the proposed approach was reasonable. Some responses noted that the data sharing rules under which the consumer previously accepted the smart / advanced meter should be respected, and that it would be unreasonable to amend this.

²¹ If a customer were to change tariff with their existing supplier they would still be entering into a new contract, albeit with the same supplier

²² Link to the Ofgem 2018 consumer engagement survey [here](#)

Ofgem response and decision

- 4.8. We have carefully considered the points made by stakeholders, and agree that it is important that system benefits are not undermined in the event that large numbers of disengaged customers remain on the current data sharing arrangement. However, it is important to recognise that customers who have already accepted a smart or advanced meter did so on the basis of the existing rules for data sharing. We do not think it would be proportionate to change this basis without clearer evidence of the impacts that may arise.
- 4.9. Our decision at this time is therefore to confirm our proposal, that customers with existing smart or advanced meters would remain subject to the regulatory framework that applied at the point at which they entered into an electricity supply contract. They will remain on that framework until the consumer decides to change electricity contract, at which point they will then be subject to the new rules on data sharing.
- 4.10. At the point at which such an existing customer changes contract or supplier, we feel it is proportionate that they are subject to the new data sharing framework, under which they will be able to choose to opt out, in line with new customers accepting smart meters.
- 4.11. We recognise the need for a clear definition of exactly when the opt-out and mandatory system will commence for new domestic and microbusiness customers respectively, as well as considerations around what constitutes a 'new customer' and an 'existing customer' in terms of what stage they are at in the smart meter installation customer journey at the point in time that the new system is implemented. We will be considering this as part of the detailed design work. We will work with stakeholders to determine the appropriate transition arrangements to the new framework, noting the need to ensure that we proceed quickly so that fewer domestic customers will remain on opt-in. If you would like to participate in this process, please contact us by emailing half-hourlysettlement@ofgem.gov.uk.
- 4.12. As noted, we have committed to undertake a future review of our decisions on data access for settlement purposes at a point in time when more data to inform the review is available. We expect that this will enable us to determine how many existing domestic smart meter customers remain on the opt-in system, and how many microbusiness smart and advanced meter customers remain on opt-out, as a result of not switching supplier or contract in the interim. The data will help us gain a clearer picture of whether maintaining the current data sharing rules for these customers will limit the benefits of MHHS, and whether it would be necessary and proportionate to take another approach.
- 4.13. For now, we note that suppliers are obliged under licence (SLC 47.15) to contact their customers regarding their HH data sharing choices on a periodic basis as deemed appropriate by the supplier, to understand if they remain appropriate for that particular customer.

5. Access to data for forecasting

Question 10: What are your views on Ofgem's proposal to make aggregated HH electricity consumption data broken down by supplier, GSP group, and metering system categorisation available for forecasting?

Question 11: Is there any additional data beyond this aggregated data that you consider suppliers will need for forecasting?

- 5.1. We are mindful that suppliers require suitable data to enable them to forecast their customers' future demands. In our consultation we set out our proposal that HH data aggregated by supplier, meter type and GSP should be made available for forecasting. We wanted to seek stakeholder views on this proposal to check whether this was the appropriate approach.
- 5.2. Many stakeholders disagreed with our proposal, stating that the level of aggregation proposed would render the data inadequate for accurate forecasting. These stakeholders noted that this aggregated data would not be fit for use for forecasting in a future, more flexible energy system, where different consumers may or may not have access to electric vehicles, battery storage, smart appliances etc. As individual consumer consumption patterns become more varied and unpredictable, a number of suppliers noted that they would require data at greater granularity than that proposed, such that they can group their consumers for forecasting purposes in different ways as the market develops. It was noted that this would be particularly critical for suppliers when onboarding new customers, in terms of understanding what the impact would be on their HH purchasing requirements.
- 5.3. Some stakeholders considered that forecasting is a legitimate interest of a supplier, and felt that GDPR therefore permits use of data for this purpose. Other stakeholders noted that use of HH data for forecasting should come under the definition of 'for settlement purposes', so suppliers should have access to HH data at MPAN granularity for this purpose in line with the rules on data sharing for settlement (ie, currently opt-in for domestic consumers and opt-out for microbusinesses).
- 5.4. Some suppliers noted that MHHS will make forecasting more difficult than is currently the case in a NHH settlement system, as suppliers will not have access to the average profiles on which their customers are settled, for forecasting purposes, as they do under the current system.
- 5.5. One supplier made the point that, if suppliers are charged on the basis of their customer's HH consumption data, it would be a basic matter of fairness to permit them to use that same data to forecast what those customers may consume in the future, to inform their own purchasing decisions. It was noted that this would be particularly critical for suppliers who had a large proportion of unpredictable consumers.
- 5.6. Other data suggested as necessary for forecasting included whether a customer was contracted to a demand side aggregator, whether they had an electric vehicle, battery storage, solar panels or heat pumps, the Energy Performance Certificate (EPC) rating of their property and details of occupancy. The beginning half of the consumer's postcode was also highlighted as useful in terms of understanding weather patterns.
- 5.7. A few stakeholders supported the proposal, believing that this data would be suitable for forecasting. Some responses noted that suppliers should only have access to finer scale data than that proposed if they committed to share the benefits of more efficient forecasting with their customers, for example through lower bills. The point was also made that suppliers should be required to demonstrate what privacy provisions they will put in place to handle the data before they are permitted to access it, in order to address consumer concerns over the data being used for other purposes such as billing and marketing.

- 5.8. One consumer group called for more evidence to quantify the benefits of suppliers having access to more granular data for forecasting purposes, before it was permitted.
- 5.9. Some stakeholders noted the risk of consumers being re-identified from the aggregated data. One suggestion was made that aggregated data for a GSP should not be made available to a supplier until they have a critical mass of customers within that area.

Ofgem response and decision

- 5.10. We are sympathetic to the argument that, if suppliers are being charged according to the actual HH data of their consumers, it is reasonable that they should be able to analyse this data to predict their likely future liabilities. We recognise that, in a fast-changing market, suppliers may need to group their customers in different ways to help them forecast, and that it would be cumbersome for them to need to request this grouping be carried out centrally.
- 5.11. On balance we have decided that, where suppliers are required to collect and process HH data for settlement purposes, they will also be permitted to use this unaggregated HH data for forecasting purposes. Microbusiness customers will therefore not have the right to opt-out of sharing their data for forecasting purposes.
- 5.12. In effect the two purposes (settlement and forecasting) will be pinned together so, for example, if a domestic consumer opts out of sharing their data for settlement purposes they will also be opting out of sharing their data for forecasting, and vice versa.
- 5.13. We note that suppliers are subject to existing data protection legislation and must treat their customers' data accordingly. They are obliged to maintain a high level of data security, including restricting which personnel are able to view identifiable data, and to adopt additional privacy measures where appropriate, such as pseudonymising or anonymising data.

6. Access to HH export data for settlement of export

Question 12: Our analysis suggests that HH export data reveals less about a consumer and is therefore likely to be of less concern to consumers than HH electricity consumption data. Do you agree?

- 6.1. In our consultation we stated our view that HH export data can be considered as personal data. However, we also noted that we do not think that export data reveals as much about a consumer as consumption data may, and will therefore be of less concern to consumers from a privacy perspective. We asked for stakeholder views and evidence on this.
- 6.2. The majority of stakeholders agreed. Some highlighted that export data is not necessarily linked to a consumer's specific behaviour or energy signature, and that specialist knowledge would be required about the consumer's export capability to derive any type of useful information that would affect their privacy. Some responses also made the point that the inclusion of HH export data is critical in contributing to an effective HHS system.
- 6.3. Some stakeholders disagreed with our analysis. Some believe that export data is just as sensitive as import data and, for simplicity, both should be treated the same.
- 6.4. Some stakeholders noted that export data could provide an insight into the export capability of a household, for example whether the consumer owned solar panels, an electric vehicle or battery storage, and that this may affect consumers' willingness to offer access to their data in case of misuse. One stakeholder asked for further research to be carried out to understand the value of HH export data being included within settlement before a decision is made on access to data.

Ofgem response and decision

- 6.5. With increasing amounts of electricity being exported onto the grid through use of solar PV installations, battery storage and electric vehicles, we consider that the risks of settlement system inefficiency created by the unsettled spill of export data are high.
- 6.6. We have not received new evidence to change our view that HH export data is less personally sensitive than half-hourly consumption data. We note the fact that a consumer's ownership of export-capable technology (such as solar panels etc.) is deducible from the fact that they are exporting at all, and is not specifically linked to the granularity of the data collected.
- 6.7. As a result, it is our view that the opt-out available for domestic consumers in respect of sharing their half-hourly consumption data for settlement and forecasting purposes should not be available in respect of sharing their half-hourly export data.
- 6.8. As noted before, parties collecting data will be subject to the requirements of existing data protection legislation, including ensuring a high level of protection of consumer data.
- 6.9. BEIS have recently consulted on the introduction of a mandatory supplier-led route to market for small-scale low-carbon generation, known as the Smart Export Guarantee (SEG)²³. The subsequent BEIS response to the consultation²⁴ sets out the requirement that meters must be registered for settlement in order to qualify for the SEG. We would expect that the settling of export data on a HH basis could facilitate the development of Time of Export tariffs, where exporters are able to benefit from differential electricity pricing at different times of the day.

²³ Link to the consultation document on the BEIS website [here](#)

²⁴ Link to the BEIS response to the consultation on the BEIS website [here](#)

Question 13: Do you consider that any additional regulatory clarity may be needed with respect to the legal basis for processing HH export data from smart and advanced meters for settlement?

- 6.10. A number of stakeholders considered that additional regulatory clarity over the legal basis for the processing of export data would be welcome. Some considered that this could be secured through the inclusion in the DAPF of reference to export data as being personal data for the purposes of data processing. One stakeholder called for an appropriate body to assess and clarify whether export data is personal data under data protection legislation prior to any decisions being made.
- 6.11. One stakeholder noted that, without clarity around the legal basis for registering export for settlement purposes, export from small distributed renewables would continue to be spilled onto the grid and be unaccounted for in settlement, negatively impacting on system efficiency and increasing costs. The same response went on to call for the introduction of an obligation for export data to be settled.

Ofgem response

- 6.12. We appreciate the points raised and will take them into consideration when designing the legal framework for access to export data for settlement purposes.

7. Data Protection Impact Assessment

Question 14: Do you have any thoughts on the monitoring/auditing environment for the use of HH data for settlement purposes?

- 7.1. There was general agreement of the need for a rigorous and transparent monitoring / auditing framework to ensure, in particular, that customer consent processes are being correctly applied and that data shared for settlement is not being used for other purposes. It was also suggested that a process should be created to handle consumers who are concerned their HH energy data is being misused. Some stakeholders felt there was a need for a specific monitoring / auditing framework relating to the issues around use of HH consumption data for settlement purposes, to be undertaken by an appropriate independent body, in order to increase consumer confidence in sharing their data.
- 7.2. Other stakeholders felt that no further action was required and that a sufficient set of rules and regulations already exists governing the protection of customer data, so there are no additional requirements for Ofgem to consider. It was felt that the current BSC procedures for auditing should be sufficient, albeit with a few necessary specific amendments relating to the processing of consumer HH data.
- 7.3. Another issue was raised relating to the necessary processes required if domestic consumers are able to opt-out of providing HH consumption data. Suppliers will need to implement processes to ensure they are able to correctly track customers' switching between the different regimes, ie either opted out or not opted out of sharing their data. It was noted that this could be included within any new or revised auditing framework.

Ofgem response

- 7.4. We will be reviewing the monitoring / audit framework related to the use of HH data for settlement purposes as part of the detailed design process, and will take these points into consideration.

Question 15: Do you have any additional thoughts or questions about the content of the DPIA?

- 7.5. Alongside our consultation document we published our 'Access to half-hourly electricity data for settlement purposes Data Protection Impact Assessment' (DPIA) and asked for stakeholder feedback on this document.
- 7.6. The majority of stakeholders either offered no comment, or noted that they agreed with our assessment of the risks. One stakeholder stated that they felt the risk to market of mandatory should be 'minor' and opt-out 'high', given the potential impact of too few customers being settled half-hourly and therefore engaging in ToU type products under opt-out (given the difficulty of predicting opt-out numbers ahead of implementation).
- 7.7. One response called for a set of simple, clear and straightforward guidelines around data access, for use by customers and suppliers. It was also noted that suppliers should give clear and consistent information to consumers around their data sharing choices to ensure that consumers understand the issues as best as possible.

Ofgem response

- 7.8. We have considered feedback on the level of the risks we identified. We have decided not to change them as we feel, on balance, they are appropriate at present.

- 7.9. We consider the DPIA to be a live document and will be reviewing and updating it as appropriate going forward; we would expect this would include a further iteration as part of our future policy review. We will keep stakeholders informed as and when we make any changes to the DPIA.
- 7.10. We have periodically consulted with the Information Commissioners Office (ICO) regarding the content of the DPIA and will continue to do so in future as appropriate.
- 7.11. We agree that it is important that suppliers and customers have clear information about the rules regarding access to HH data. We will consider the best way to make sure this is provided, however we note again that the responsibility lies with suppliers and other parties to ensure that they are compliant with the requirements of the licence conditions and with data protection legislation.
- 7.12. We note that suppliers are obliged under the Smart Meter Installation Code of Practice (SMICoP)²⁵ to make their customers aware of the smart meter data sharing framework, as follows:

'2.49. All reasonable endeavours should be used to provide the customer with a copy of the Data Guide or make the customer aware of the Data Guide commitments prior to the Installation Visit'.

Energy UK in collaboration with Citizens Advice developed an example of a one-page data guide²⁶. Suppliers may use this guide if they wish, or alternatively develop their own consumer-facing material on data sharing in order to serve the same purpose.

²⁵ Link to The SMICoP [here](#)

²⁶ Link to the Energy UK website [here](#)

Next Steps

- 8.1. The design of the revised settlement arrangements (TOM) for MHHS is being developed by industry through the DWG, chaired by ELEXON.²⁷ We are working with the DWG and industry to ensure that an efficient and effective TOM design is developed. The decision on the final TOM will be made by Ofgem using the FBC on MHHS.
- 8.2. As noted throughout this document there are still some detailed design considerations to make in terms of access to data, beyond the high-level issues addressed here. We will be continuing to consider these points as we move towards our final decision. These types of decisions include, but are not limited to, how the transition from opt-in to opt-out for domestic consumers will work, the details of how the opt-out scheme will work, what information will we be collecting to inform the future review, etc.
- 8.3. If you would like to be involved in this process or have any questions or comments on this letter, please contact the Settlement Reform team at Half-HourlySettlement@ofgem.gov.uk.

Future Review

- 8.4. As noted in the document, we will be reviewing the evidence following the implementation of MHHS to understand if the access to data framework is appropriate for the system wide benefits to be realised, including those being considered through wider work, such as the Access SCR. If not, we will amend our decisions as required, after examining all the relevant evidence. Our review will include consideration of whether an opt-out framework for domestic consumers is delivering system-wide benefits and, if not, what changes would be proportionate. We will also examine whether large numbers of domestic customers are remaining on an opt-in framework due to lack of engagement with their supplier / tariff choices, whether this is likely to undermine system and consumer benefits and, if so, what changes would be proportionate. We will consult on any proposed changes to the access to data framework as and when necessary.
- 8.5. We will set out our expected review date when publishing our final decision on MHHS.

²⁷ Links to the TOM work are available on the Ofgem website [here](#)