nationalgrid

National Grid House
Warwick Technology Park
Gallows Hill, Warwick
CV34 6DA

John Twomey
Future Markets
Electricity System Operator

www.nationalgrid.com

3 September 2018

Consultation on access to half-hourly electricity data for settlement purposes

We welcome the opportunity to respond to Ofgem's consultation document of 10th July 2018. This response is made on behalf of National Grid Electricity System Operator (ESO) and is not confidential.

The ESO is supportive of the drive towards market-wide half-hourly (HH) settlement for domestic and microbusiness customers, as per this consultation. We recognise the cost savings and consumer benefit that HH settlement will deliver as the outcome of the supplier being exposed to the true cost of supply, which, in turn, will place stronger incentives on suppliers to develop and offer new tariffs and innovations, as well as to help their customers better manage their energy usage.

Like Ofgem, we acknowledge that in a smart metering world it will be crucial to give consumers clarity and reassurance about how (and by whom) their electricity consumption data can be accessed and used and the choices they have in relation to this access and use. The ESO is aware of the importance of protecting consumer data and the appropriate use of data to yield consumer benefit.

We believe that supplier access to HH electricity consumption data should also enable suppliers to more accurately forecast customer demand and contract more accurate levels of electricity generation. In turn, this could reduce the amount of overall system imbalance and so the associated real time balancing actions undertaken by the ESO.

Although not in the scope of this consultation we also note the potential for the ESO to draw value from having access to HH electricity consumption data in the future. In the case of short term transmission system demand forecasting this would need to be supplemented by additional data (e.g. micro-generation and demand generation) and studies to assess and confirm the value for forecasting short term variations at transmission system level.

We have chosen to respond to those questions (in Appendix 1) where we believe it is appropriate for us to comment and if you would like to discuss or have any questions please contact Sarah York (Commercial Analyst) in the first instance at sarah.york@nationalgrid.com

Kind Regards,

[EMAIL]

John Twomey
Future Markets
Electricity System Operator

Appendix 1

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?
We believe the tension between the data privacy of consumers and the consumer benefits expected to be created by these reforms is key so we consider Ofgem's assessment of the three core options to be fair, balanced and comprehensive in scope. This holistic approach rightly takes account of how market-wide HH settlement will, to a greater or lesser extent, benefit and impact all affected parties.

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.
We generally support Ofgem's view that option 2 strikes the best balance. The number of consumers who exercise their right to opt-out is likely to be low, hence option 2 is likely to yield a high rate of HH settlement. We would emphasise the importance of consumers being given clear information in advance about what data will be collected, for which purposes and clear information of their data options. The implications of opting-out should also be clearly outlined i.e. if consumers' data is not used for settlement what does that mean for them, if anything.

While supportive of option 2 we note that option 3 (Mandatory) should be further considered in light of the consultation feedback and also in the context of the Outline Business Case feedback i.e. what might the 'opportunity cost' of the stronger data privacy position be for consumers. A mandatory approach offers greater certainty and would make demand forecasting and balancing the system easier and would create a simpler market whereby consumers are treated more equally and suppliers are incentivised (likely by time of use tariffs) to shift demand away from peak periods. For example, as the number of electric vehicles increases the peak demand observed on the network will also increase and, unless sufficient incentives are put in place to encourage a shift away from the peak period, there will be a need for more generation and network reinforcement at a cost to end consumers.

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?
We understand that this risk exists under the current settlement arrangements so it is assumed that Profile Class 1-4 (or whatever replaces them through the TOM) will need to be revised to reflect the new average usage profile of those consumers being settled on a HH basis and this could serve to address the concern i.e. how to settle those consumers who have opted out or do not have a smart meter installed. However, we acknowledge that this raises the further question of how any revised profile classes would be created to reflect the changed average usage profile of those customers who remain NHH settled, for whatever reason. Today profiles are created based on a sample of customers who have data loggers installed alongside their legacy (non-smart) meter. In the future, data loggers would therefore potentially have to be given to a sample of those customers who have opted out. An alternative option is to have the opt-out option for the use of HH data for settlement purposes but mandatory use of HH granularity data for other purposes (e.g. the creation of suitable profiles for opt-out customers).

Question 4: What are your views on the potential enhanced privacy options?
Based on Ofgem's assessment, we believe that the additional costs associated with implementing either the anonymisation or hidden identity option may prove difficult to justify should consumer participation in HH settlement (under either opt-in or opt-out) be at the lower end of the range and uncertainty remains about how the associated costs would be recovered.

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?

We would observe that making such a decision ultimately comes down to the respective cost implications associated with the favoured option. For example, if it is more cost effective for data from all consumers to be pseudonymised then elect for this option but if it is determined not to be cost effective then do not.

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

We broadly agree with Ofgem's assessment, however, it is worth noting that there may still be some concerns about commercial confidentiality and an expectation for data to be handled securely. We note Ofgem's statement that there is significant variation within the microbusiness sector, with some operating from domestic premises – it would be useful to understand how this variation might be accounted for in any new HH settlements arrangements.

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?

We believe that Suppliers should receive HH electricity consumption data to enable improved forecasting and contracting of the correct volume of electricity generation. Given the large number of domestic and small business customers, and the associated consumption volumes, having insufficient data for these groups could lead to demand forecasting model errors and thus larger than necessary (due to under-utilisation of the available data) supplier and system imbalances in real time. We would suggest that suppliers are provided with data at GSP-level granularity rather than GSP group; it is this finer level granularity that also provides more useful information for transmission demand forecasting purposes.

While this consultation is principally concerned with suppliers, we would point to the potential future benefit that HH consumption data might have for demand forecasting at transmission level. There is potential for the ESO's Energy Forecasting Team to utilise HH consumption data, when combined with additional data such as distribution-connected generation and line-loss information, to better inform their understanding of trends in national and GSP-level transmission system demand. Using HH consumption data could provide an alternative route to modelling transmission system demand and thus illuminate other trends. To determine how this may work in practice the ESO would, at least, require access to consumption data from all consumer classes in addition to domestic and small business, as well as the other datasets mentioned above.

As a related point, we would draw attention to the recent agreement for National Grid to have access to MPAN level distributed generation and demand data held by Electralink, which will aid our understanding of the nature and extent of changing energy patterns as a result of growth in distributed energy resources (DER) and thereby improve the accuracy of short and long-term modelling and forecasting. It is reasonable to conceive that similar network performance and consumer benefits may be possible with access to data HH electricity consumption data.

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

We consider that additional information such as the presence, specification and indeed output of micro-generation would be important for suppliers to build accurate consumer-demand forecast models. Given the large areas covered by some GSP groups, and the potential weather variations therein, aggregating

data to GSP levels (or below) only could enable the use of localised weather forecasts to deliver more accurate consumer demand forecasts.

We note that the arguments outlined above are also applicable to electricity demand forecasting undertaken by the ESO. Additional data that could make HH consumption data useful for transmission level demand forecasting include: micro-generation data, lines-losses, distribution generation data and customer type information. In the case of the Energy Forecasting Team, who complete short-term forecasts specifically for GSP areas, the aggregated data would be required to a level of granularity no wider than GSP-level. Moreover, we observe that suppliers are in a good position to add value to any HH settlement data that the ESO might receive in the future, for example providing details about customer-types; this would allow demand models of underlying and transmission system demand based on consumer level HH settlement data to be built and tested more efficiently. These additional considerations would - as Ofgem note - also require consideration in respect of data privacy to ensure a suitable balance.