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Dear Rob

Half-Hourly settlement: the way forward

Thank you for the opportunity to respond to your open letter on the way forward for Half- Hourly settlement.

RWE npower supports the introduction of Half-Hourly (HH) settlement for profile classes 1–4 but believes that the plan for moving to HH settlement, and the associated milestones timetable must be pragmatic and deliverable across the market, in particular it will need to consider the scale of direct change that may be needed, as well as the capacity of customers to accept such change and of the market to deliver it.

For universal HH settlement to work effectively it requires the widespread deployment of meters capable of recording and storing HH consumption data. Careful consideration should be given to both the timing of a move to mandatory HH settlement and the approach undertaken to get there in order to optimise the substantial investment costs by industry parties, which will ultimately be borne by customers. For the avoidance of doubt we include Ofgem's proposal on elective HH settlements within that approach.

When deployed on a large scale, time of use products are likely to benefit from HH settlement, however there should also be a demand for them by customers. Some domestic and microbusiness customers will want them although many may not. So the transition to HH settlement will create the opportunities to develop time of use products and tariff innovation. However, suppliers and third parties will innovate in different ways to meet the needs of customers. The mass deployment of these products should be allowed to develop in a way that differentiates between offerings. The move to HH settlement should proceed in a way that achieves the objective of widespread HH settlement without requiring suppliers to offer time of use tariffs if they do not see a demand for them from their target market.

The move to HH settlement will impact the entire market including the customers it serves, and so, this is a change that should not be taken lightly. A process of careful planning and development therefore needs to be adopted before any large scale investment is made around HH settlement whether elective or mandatory.

We set out in Appendix 1 our views on the existing and potential barriers for elective HH settlement and in addition we provide views on the envisaged journey to mandatory HH settlement.

RWE npower takes the protection of all of its customers seriously and as such believe it would be negligent not to flag the potential impacts of elective HH settlements on those customers who choose not to take this path. We detail our concerns in Appendix 1. We ask Ofgem to consider these concerns carefully when setting out their plans for both elective and mandatory HH settlements.

Yours sincerely

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Appendix 1. RWE npower's views on barriers to HH settlements, the journey to mandatory HH settlements and the potential impacts on customers.

We note the work carried out by the Settlement Reform Expert Group, which we took part in, and agree with the issues raised by the group that must be resolved before the implementation of mandatory HH settlement. We understand that the Settlement Reform Advisory Group (SRAG) will present a report to the BSC Panel on 16th February which will include recommendations on issues that could be perceived to be barriers to elective HH settlements for smaller customers. In the absence of this report some of the key issues we set out below may duplicate the SRAG's findings. We have raised some of these issues previously in our responses to the Competition and Markets Authority (CMA) and other issues we raise are new considerations in the light of Ofgem's open letter in which they set out their direction of travel towards mandatory universal HH settlements via elective HH.

1. Barriers for customers

Domestic Customers

RWE npower believes that the current tariff cap introduced by Ofgem under the Retail Market Reform is a barrier to product innovation and, as such, a disincentive for elective HH settlements. We therefore await publication of the CMA's Provisional Decision on Remedies with interest in terms of whether the CMA implements a decision to remove this measure.

Removal of the tariff cap alone however is unlikely to be sufficient to encourage large scale uptake of time of use tariffs by customers. A customer engagement campaign, similar to the one undertaken for the Smart metering roll out or the campaign being considered for Faster Switching, will be required to educate customers on the benefits of managing their demand through Smart metering enabled time of use tariffs. We believe this should be launched before the onset of mandatory HH settlements.

The characteristics of microbusiness customers and their ability to benefit from HH settlements

There are fundamental differences between domestic and microbusiness customers and the HH settlement proposals should adequately reflect this. The benefits of HH settlement for SME/microbusiness customers are comparatively lower than they are for domestic customers, since these business customers generally have less ability to change their consumption behaviour to take advantage of the benefits of time of use products.

Our research indicates that most businesses are either unwilling or unable to shift their business activities to take advantage of potentially lower energy costs. Ofgem's own research supports this; for over 75% of small businesses energy costs comprise less than 10% of their overall cost base. As such, understandably, they have little incentive to change their business models to reduce their energy bills.

Microbusinesses are themselves a range of diverse groups and there is a case for designing a solution that is appropriate and proportionate to each of them; a one size fits all approach would not work. This is because industrial and commercial customers have little discretion as to their energy requirements but they have significant capability to implement controls to manage their requirements. Domestic customers have a fine level of discretion as to how much energy they use, but currently few controls (e.g. in terms of tariff) over that usage. Small and medium-sized enterprises do not have a lot of discretion over their energy requirements, nor do they have the capital investment capability of industrial and commercial customers to control their requirements

With the growing use of time of use products by domestic users, business customers may also begin to use them but we believe the take up will be slow. Business customers are more likely to be



motivated by price and those that are unable to shift the times of their energy loads may not take advantage of time of use product.

2. Co-ordination of Half Hourly Settlement with energy market reform

There are other reforms of the energy market either proposed or scheduled over the coming years that will affect suppliers' systems. Overlaps between these reforms are likely to result in added costs and practical difficulties and will create uncertainty and risk to the HH settlement programme. Therefore the timetable for the implementation of HH settlement, elective or mandatory, must properly take them into account to ensure they do not become barriers to its successful implementation. Examples of these reforms are the EU General Data Protection Regulation; ACER's proposals to harmonise the imbalance settlement period (ISP) across Europe to 15 minutes and the potential remedy, as set out in the CMA's notice of possible remedies, for suppliers to publish prices for microbusiness customers using on line quotation tools and price comparison websites. The nature of these is unknown and may not be known until 2017. It will be integral therefore to ensure the proper co-ordination of other regulatory interventions with this measure as otherwise there is a potential risk of compromising the successful implementation of HH settlement.

Data protection and privacy

Data privacy is a fundamental issue which must be addressed. Data protection rules covering access to customers' data are acknowledged by the industry to be a barrier to HH settlement. Presently, suppliers can only use HH data with a customer's consent and necessary uses for regulated purposes have not been confirmed. In the transition period for elective HH settlement this should not be an issue; customers choosing that route are likely to give consent willingly. The problem comes when HH settlement becomes mandatory. To mandate HH settlement but not change the data privacy framework would mean the significant costs associated with a move to HH settlement would have limited benefit because, under opt-in arrangements, we anticipate only 15-20% of data would be obtained by suppliers. With this in mind, changes will be needed to the relevant licence conditions to enable suppliers to take the customer's HH data for 'regulatory' purposes. The particular issue with the EU regulation is that until the text of the UK instrument to transpose it into UK law is known there is a risk that the industry will not understand the full impact of the rules on their ability to obtain and use customers' data for settlement purposes thereby creating a potential barrier to elective HH settlements.

Fifteen minute imbalance settlement periods

The proposed harmonisation of the imbalance settlement period (ISP) across Europe to 15 minutes, which we oppose, is another example of a potential reform that creates uncertainty and risk at a level sufficient to create a barrier to elective HH settlement. If it were to go ahead, a possible outcome could be a two stage process, whereby changes to effect either elective or mandatory HH settlement are implemented first and subsequently the ISP is harmonised to 15 minutes. This would be inefficient and costly. Moreover, moving towards 15 minute imbalance settlements will impact both the design of Smart meters and also the success of the Government's Smart Meter Implementation Programme. The costs of changing the meters to be installed and those already installed along with other changes to processes and systems would be substantial, and would cost hundreds of millions of pounds.

Competition and Markets Authority remedies

Remedies included within the CMA's final conclusions could potentially impact the way in which both domestic and microbusiness consumers make decisions on energy usage, therefore it is essential that Ofgem fully understands how the remedies will embed before it makes fundamental decisions on HH settlement



3. The Data Communications Company (DCC) and data collection

One complication that the present design of the Smart metering architecture presents when moving to HH settlement is the latency of data collection in the Smart regime. Under the present arrangements for Smart metering the DCC will poll Smart meters to retrieve consumption data periodically in agreement with suppliers. The design allows for NHH settlement to take place but in a more timely way than with traditional meters.

The data will not be collected in real-time or near real-time. For time of use and especially demand side response products to be effective some form of real-time monitoring may be required and the proposed HH settlement approach with the present design of the DCC does not allow for this to happen easily. This suggests that the DCC service may need to be altered, at a cost, or that suppliers may have to use alternative means to record and present consumption information to customers.]

Additionally, there are certain operational constraints in respect of the DCC that will need to be reviewed to ensure they do not become barriers. For example suppliers are required to provide the DCC with service request forecasts so that they can size the Wide Area Network (WAN) and their systems appropriately. If there was a significant take up of elective HH settlement, appropriate forecasts would need to be provided. A supplier would therefore need to decide and plan its elective HH activity well in advance of its projected usages of the DCC network. This may impact charges if the DCC needs to implement development work to accommodate it.

Finally, in terms of erroneous data, we do have concerns. The DCC is not yet operational so analysis will need to be run on the completeness and accuracy of the data returned. Anecdotally, we are aware that there have been some early experiences of polling errors such as incomplete files and erroneous zero values leading to re-polling of the meter. We suggest that the industry needs to have assurance of the SMETS2 file accuracy if we are to avoid continually re-polling the meters or alternatively implementing estimating routines.

4. Existing HH Processes and frameworks

The Change of Measurement Class process

The Settlement Reform Expert group has identified that the present Change of Measurement Class process for switching from NHH to HH settlement is not fit for purpose. It is arguable that during the voluntary phase when suppliers may offer elective HH settlement there will be no compelling need for a revised Change of Measurement Class process. However there will also be a need to enable sites that were settled HH to move back to NHH. Customers will wish to switch to NHH products, perhaps on a change of occupier, when a new customer no longer wants an elective HH settled product that the previous occupier had. With these considerations in mind, the urgency of the need to improve this process will depend on the level of take up of elective HH settlements.

Impact on industry agents

RWE npower believes that more work needs to be carried out on the impacts of elective and mandatory HH settlements on the industry agents that are the Meter Operator, Data Collector (Data Retriever and Processor) and Data Aggregator.

It is not clear at this stage whether HH settlements as we understand it today will be the same in a Smart world or whether it will be a lighter version of the existing arrangements. Assuming however that for now elective HH will remain in its current format, the existing industry requirements on HH agents could become barriers to the take up of elective HH settlements. To give an example every 'remote' meter in the market will have a hardware (the meter and modem) and a firmware (software programmed on the meter) arrangement. In order for a Change of Measurement Class to take place



the HH agent would need to understand the specific combination in this arrangement for every meter that elects to settle HH. This is more complex than it appears since not all meters, even for the same manufacturer, has the same 'firmware' setup. Once the combination of hardware and software on each meter has been identified connectivity testing is required. These processes may not be required in a world where the DCC is the conduit for meter readings but new ones will be needed to put in place a suitable framework firstly for the elective HH settlement regime and secondly in readiness for the mandatory HH settlement regime. This may mean an evolving or two distinct frameworks.

A further point for consideration is the ability of HH agents to scale up to meet the potential demand for elective HH settlements. The number of HH settled customers in the industry is small in comparison with those settled NHH and it is fair to say that HH agents provide a fairly bespoke service. It is not clear whether they have the capacity or capability to service significant take up of elective HH meters.

The Smarter Markets Settlement Reform Expert Group looked at the possibility of centralising data processing and data aggregation for mandatory HH settlement but did not come to any firm conclusions. We do not advocate a rushed decision on this but do recommend that a detailed impact assessment is carried out to understand the potential effect of a significant take up of elective HH settlements on HH agents. An analysis on the ability of NHH agents to manage significant volumes of Change of Measurement Class enactments both from NHH to HH and vice versa should also be undertaken.

5. The cost of elective HH settlement

In this section we examine the cost of elective HH settlements from two differing perspectives. Firstly existing HH costs that could act as a barrier to increasing uptake and secondly the cost of elective HH settlement to customers who continue to be settled NHH. The latter perspective must be taken into account when assessing the benefits of HH elective versus the need to protect the remaining NHH customers.

Existing HH costs

The current calculation of the likely costs of HH settlement is more complicated than that for NHH settlements and it is unclear how the costs will be made up under the new regime. In particular, clarification is required on whether the move to HH settlement will continue have implications for DUoS and TNUoS charging for Network Capacity and how the existing TRIAD based approach will impact domestic, microbusiness and SME customers who elect to settle HH.

Currently there is little difference in energy pricing between peak and off peak periods and there is little demand from customers to shift consumption away from peak hour of the day. However the current DUoS and TNUoS charges to HH customers for network capacity provide an additional incentive to do this: by not consuming during potential TRIAD periods an average residential consumer could make savings on their electricity bill, through avoided TNUoS charges alone.

Whilst not all customers will do this, some will. In theory costs should balance out as a result of this change in behaviour if the consumption increases during a lower demand period. However there is a potential risk that the lost revenue to Network operators will be recovered in the form of higher charges on those customers who don't change their behaviour. The implication here is that without reform to Network charges the roll out of HH settlement, both elective and mandatory, will redistribute Network charges between different types of customers.



Costs of implementing the change

Moving to HH settlement will incur considerable costs, but if deployment is too hurried or takes place before there is the required customer demand there is a risk of compromising customer confidence in Smart metering. We elaborate further on this in Section 8.

Estimates of the costs of HH settlement vary. The CMA estimates the cost of implementing BSC modifications P272 and P322 to be in the order of £46 million to £199 million. This is for around 167,000 customers in profile classes 5 - 8, relatively few compared with customers with profile classes 1 – 4 sites.

Another, less recent example in terms of the cost burden of similar regulatory measures, is that of the New Electricity Trading Arrangements (NETA) introduced in England and Wales in March 2001. The NETA Summary Report on May 2003 (by the Comptroller and Auditor General) stated that the new market-based arrangements were implemented “at a cost of £39 million. Ofgem estimated that, in total, businesses in the industry could incur costs of up to £580 million (in the event the costs of closing the Pool were £40 million less than expected) including in adapting their operating procedures and IT systems to the new arrangements, and that participants could additionally incur operating costs of £30 million a year.”

Ultimately, customers will bear the costs of implementing HH settlement and RWE npower is concerned that customers who do not participate in elective HH settlements will be burdened by the cost of enabling it. At a time of significant and costly industry change we do not believe it is appropriate or fair to load even further additional costs onto them. In particular, we do not agree with Ofgem’s apparent assumption that costs will only be incurred by suppliers who wish to settle on a HH basis and set out some supporting arguments below:

It is possible that HH customers will switch to suppliers who do not elect to settle HH. These suppliers, in anticipation of this occurrence, will need to make considerable changes to their systems and processes to allow them to either support these customers’ existing settlement arrangements or to reverse engineer them back to NHH settlement. For example, suppliers that opt for the latter will need to be able to gain the customer on a HH basis and then enact the required processes to change them back to NHH.

Changes to central systems as well as existing industry processes and data flows will be required to enable HH settlements on an elective basis. To ensure that their systems will accept the new style data flows and processes, (and as we have indicated above even where they have not elected), it is likely that supplier will need to make changes to their systems and processes to accommodate them. As a Furthermore, all suppliers will be required to pay for central system changes to enable elective HH settlements through their BSC charges. We appreciate that changes will be required for mandatory HH settlements and suppliers will be required to fund this but we believe this should be at a time appropriate for all suppliers to execute mandatory HH settlements and should not enable some suppliers to pursue their commercial strategies to the financial detriment of the remaining NHH customers.

We mentioned earlier the potential impact on the DCC charges should they need to scale up to accommodate sufficient take up of HH elective settlement. RWE npower believes that these charges should be allocated on a User Pays basis and not be spread across the wider supplier community.

Ongoing NHH costs

Under the current BSC arrangements, the cost of volume error is smeared across suppliers’ NHH portfolios through Group Correction Factor. If this arrangement continues, as the size of the HH elective portfolio increases, the costs to the remaining NHH suppliers and, more importantly,



customers who remain NHH settled will increase. Some work has been carried out in the industry to review settlement profiles but further work is required to improve Group Correction Factor calculations. For example, appropriate Group Correction Factors should be applied to HH consumption. The central systems do currently apply them to HH consumption but they are applied at such a low rate (a fraction above zero) that it is negligible so the cost of undetected or unsettled electricity theft and settlement errors such as those relating to Unmetered supplies, metering and Line Loss Factors are borne entirely by NHH customer.

As the NHH portfolio decreases settlement volumes will also become more unpredictable and therefore settlement costs such as Imbalance, BSUoS and TNUoS would follow suit. We believe this would put some suppliers and their customers, particularly small suppliers, at a disadvantage and provides commercial advantage for those that have focused on early roll out of Smart meters.

6. Interoperability issues

We have previously mentioned the cost of reverting HH settled customers to NHH. Here we elaborate on our concerns in respect of the interoperability issues that elective HH settlements could create.

The Change of Supplier gain process will need to take into account changes in settlement details. We cannot expect the losing supplier to revert the settlement back to NHH prior to the transfer where this is necessary as they will not understand the configuration the gaining supplier will be implementing to match the product or tariff with the meter. As a result it will be necessary for the gaining supplier to make the changes.

In practice this will mean the supplier will be required to appoint HH agents and manage the relevant HH data flows initially and then undertake the Change of Measurement Class and Change of Agent processes as well as establishing the customer's NHH settlement profile through Market Domain Data such as Profile Class, Standard Settlement Configuration etc. These are not easy processes to implement. They will complicate the switching process and risk tarnishing the customer's switching experience. The issue is compounded within the context of faster switching and therefore the processes to change Market Domain Data for these customers need to be reviewed to support the flexibility that Smart metering could bring.

The complexity of these processes could inadvertently result in HH elective customers having a restricted choice of supplier as they will be confined to only those that use HH settlement. The complexity of these processes could inadvertently result in HH elective customers having a restricted choice of supplier as they will be confined to only those that use HH settlement. With a lack of choice, there is a risk therefore that HH elective customers may end up on less favourable offerings compared to more competitive offerings from NHH only suppliers.

More generally we believe that the current industry process for changing Market Domain Data is not as flexible as the Smart meter configuration is able to be. This will be a barrier to any changes in products and tariffs that necessitate changes to Market Domain Data and settlement configurations unless the processes and data are changed.

7. Mandating HH through elective HH

RWE npower believes that the introduction of elective HH settlement for domestic and small business customers is a distraction at a time when it should be focussing on Smart metering implementation and ensuring the customer's experience of it is a positive one. Furthermore we envisage a high number of settlement exceptions being unearthed throughout the roll out and believe suppliers should be focussed on correcting these first in order to provide a stable platform on which to base HH settlement.



As we have previously stated, even suppliers who opt not to take up elective HH settlement will face significant changes and costs to enable other suppliers to do so. Against the current backdrop of the high volume of industry changes the timing is inappropriate, especially given the levels of uncertainty in respect of the central delivery of some of the biggest changes such as the DCC and Project Nexus.

Whilst we understand that some suppliers may be keen to trial time of use tariffs we do not believe it is necessary for them to be settled HH at this stage. Smart meters will deliver benefits to customers and suppliers, for example more frequent and timely meter readings, which should in turn lead to fewer estimated bills and more efficient Change of Supply processes. The data from Smart meters could enable time of use products that are not linked to HH settlement. Information about consumption can be provided through means other than just billing, which some suppliers and energy service companies offer their customers already.

We acknowledge that these measures may incur some minor settlement risk for suppliers, but we already have such products supported by traditional NHH meters, so there is no compelling need for Smart meters to be settled HH in order to deliver benefits to customers.

RWE npower is also concerned that the introduction of elective HH settlements for domestic and small business customers will drive the industry to the early mandation of HH settlements, as previously mentioned, at a time that is neither necessary nor appropriate. For example if one or two larger suppliers have sufficient take up of elective HH settlement, the remaining suppliers, small, medium and large, may feel pressured to take the same direction of travel even though their customers may not want it and will not benefit from it. Additionally we have strong reservations that, should this happen, interim processes and changes put in place to service a relatively small number of customers who elect to settle HH become the de facto framework to support mandatory mass HH settlement even where the process is insufficiently developed and is neither robust or efficient.

We urge Ofgem to take these concerns into account and ensure firstly that the move to mandatory HH settlement is made in the appropriate timescales with the appropriate framework in place and secondly that there is sufficient protection for those customers who do not move to elective HH settlements.

8. When to move to Half Hourly Settlement

Some parties have suggested there is merit in moving quickly to HH settlement in order to minimise the costs of changing central systems and to reduce the time needed to run dual systems in parallel. We believe this is a view that does not take account of the potential disruption to suppliers' and Ofgem's change programmes. Whilst early migration to HH settlement may reduce central parties' costs, it will cause considerable disruption to suppliers and to customers. There is no merit in moving towards HH settlement quickly if in doing so, customers experience more disruption and inconvenience.

Ofgem has proposed that the development of a mandatory HH settlement solution will happen at the same time as the move to Next Day Switching, the deployment of Smart metering and implementation of any CMA remedies. These are all significant developments and will require investment and staff resource. Work on central changes to facilitate HH settlement will take place at the same time.

The additional costs and complexity, to an already busy change and transformation programme will compromise the successful and timely delivery of all the programmes. We urge Ofgem to consider carefully the interaction of any changes for HH settlement, both elective and mandatory, with the other major change programmes taking place at the same time. We recommend that the move to



mandatory HH Settlement take place only once the Smart rollout has been completed and there is certainty on the outstanding policies for data protection, 15 minute settlement and any CMA remedies.

Similar considerations will also apply if the move to mandatory HH settlement takes place before the end of the Smart meter deployment scheduled for 2020. The impact of such a policy development would be serious; moving from NHH to HH settlement will add extra time to the deployment and will compromise suppliers' plans for the roll out of meters. Furthermore if demand side products are forced on customers before they are ready to embrace them, either during the elective phase or through mandation, this could undermine customer enthusiasm to have a Smart meter fitted as they perceive their lack of capacity to manage their own demand leading to higher bills. Similarities can be drawn with the water industry where customers are known to refuse meters because they see them as a route to increased bills.

Finally, we urge Ofgem and the industry to learn from the experience of BSC Modification P272 and ensure that the customer path to HH settlement is fully supported by industry processes before introducing a deadline rather than after, so avoiding the risk of implementing changes in short order such as BSC Mod P322, DCUSA DCP248 and TNUOS CMP241/7. In reality HH settlement is not HH billing but multi-register which will require a new set of profiles and revised industry charges such as Use of System charges in the way that HH does not. For HH settlement to be successful for customers as well as the industry these changes need to be properly designed and delivered. This takes time but it is time which must be taken.