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Dear James,

**ELEXON response to Ofgem's Consultation on Mandatory Half-Hourly Settlement: aims and timetable for reform**

We welcome the opportunity to respond to your consultation on Mandatory Half-Hourly Settlement: aims and timetable for reform. As you are aware, ELEXON has always sought to improve the settlement process as governed by the Balancing and Settlement Code (BSC) especially in light of advances in metering and other technology developments. Since 2010, we have lead discussions of various improvements and implemented changes (such as mandatory Half-Hourly settlement (HHS)) through various work groups, including the Profiling and Settlement Review Group (PSRG)[1] and the Settlement Reform Advisory Group (SRAG). We provided the BSC Panel report, Delivering Settlement Reform, to Ofgem in 2012 which demonstrates our thought leadership and expertise in the area. Furthermore, we have been providing input to Settlement Reform through your Electricity Settlement Expert Group (ESEG) and through regular meetings with the Ofgem Settlement Reform team. We have also driven the required changes to improve HHS for customers and Suppliers who wish to settle using half hourly meter data (elective HHS). These changes are due to implemented in the first half of 2017.

ELEXON notes that it was always the intention for all settlements to be based on half-hourly data, once the appropriate metering systems were available and in place. This was a consideration when designing the settlement arrangements for the introduction of supply competition for all customers in 1998 (as implemented by the 1998 Programme). Non-Half Hourly settlement (NHH) was seen as a temporary approach to allow supply competition for customers with the constraints of the available metering.

The introduction of mandatory HHS is likely to have significant impacts on market participants, the BSC arrangements, processes and systems and ELEXON. As such we will need to work closely with you to ensure the design, architecture, transition arrangements and delivery of HHS is successful. This is to bring the maximum benefits to the end consumer.

We agree that a combination of an Significant Code Review (SCR) and Supplier and Distribution licence modification powers are the best tools to address the work required to implement mandatory HHS; that is examining the issues to be addressed, migrating all domestic and smaller non-domestic customers to HHS and successfully managing the changes that will be needed across multiple industry codes and licence conditions. The governance and project management of this work needs to be set

[1] The PSRG and SRAG were established under the Balancing and Settlement Code. They were set up to identify and consider and implement improvements to settlement process for customers connected to the distributed distribution network. For further details see the ELEXON website, PSRG and SRAG.

out clearly. ELEXON is responsible for the settlement arrangements and is ready to take a leading role in the development and implementation of this work programme as well providing the technical settlement expertise and knowledge. Our not-for-profit status and recognised independent, critical friend, and trusted advisor role places us ideally to support this work. Additionally, given our technical skills, knowledge and leadership in this area we are well placed to take a leading role. We would welcome a discussion with you to further explore where we can help Ofgem bring about the design and delivery of an efficient and effective HHS market.

We believe that the scope of the potential changes required is considerable, as demonstrated with the mandating of HHS for smaller commercial customers (BSC Modification P272 Mandatory Half Hourly Settlement for Profile Classes 5-8). There will also be many cross cutting issues related to the work currently underway on flexibility such that the two cannot be considered in isolation. This is because any Target Operation Model (TOM) for Mandatory HHS should recognise the aims of promoting flexibility. The TOM should be designed in a way to ensure that it does not constrain the access to appropriate information that would be required to achieve the goals of the Demand Side Flexibility work (and the recent call for evidence).

The timeframes have significant dependency and interaction with the smart meter roll-out. The success and scale of which will be a key consideration in this work. We note that the consultation also does not consider how the existing NHH arrangements will be closed down and the transition to the new HHS arrangements. The transition is a critical step and decisions will be required on how long parallel systems and legacy services (like profiling) should be maintained. This is to ensure participants understand their obligations and can plan accordingly. It may be appropriate to consider how costs are allocated for using legacy systems and processes for a reducing meter population to create appropriate incentives to transition to the new arrangements.

ELEXON will also need to understand what investments to make in existing or potential new systems and what design is necessary to meet the ambitions of a more decentralised, flexible market. Timing and certainty of design are critical to ELEXON's planning of procurement and delivers the most effective service to existing and future users. The move to HHS will be just one of a number of changes[2] taking place in the next 5-10 years that will have impacts on the energy industry's systems' design, architecture and its delivery capability.

We have provided detailed responses to the relevant consultation questions. We look forward to meeting with you to discuss our response in further detail at a convenient time.

Yours sincerely,

Justin Andrews

Head of Design Authority

[2] ELEXON produce a BSC Systems Roadmap. This provides a view of market and regulatory changes that impact the Balancing and Settlement Code (BSC) Systems over the next five years. It presents ELEXON's best view of the likely timing and impact of major industry/regulatory developments, alongside approved or prospective BSC Changes.

# MANDATORY HHS RESPONSE FROM ELEXON

**Please see below ELEXON's detailed response to your consultation on Mandatory Half-Hourly Settlement: aims and timetable for reform.**

## CHAPTER: Two

**Question 2.1 Do you have views on our proposed approach?**

ELEXON agrees that a combination of a Significant Code Review and licence modification powers are the best tools for: examining the issues to be addressed before migrating all domestic and smaller non-domestic customers to Half-Hourly Settlement (HHS); and for successfully managing the changes that will be needed across multiple industry codes and licence conditions. We understand the Competition and Markets Authority proposals for further powers to Ofgem would be an alternative approach, but would not be available in time, due to the legislative time required, for commencing this work.

The Target Operating Model (TOM) needs to be very clearly defined and understood by industry parties before a robust impact assessment can be undertaken. ELEXON's past experience with modifications has shown that without a clearly defined model a meaningful impact assessment cannot be carried out. The TOM's dependencies with other work programmes, such as the success of the Smart meter roll-out and availability of a central registration system, need to be taken into account during development of the work to ensure they work cohesively together.

The Ofgem consultation does not consider how the new HHS arrangements will be transitioned from the existing non-half-hourly settlement (NHH) arrangements, and how the NHH settlement processes are closed down. We believe it is essential to consider the closure and transition of the NHH arrangements to a Mandatory HH future to avoid 'poor design' and the need to maintain two separate processes. We would also wish to avoid iterative changes to industry IT systems when the remaining NHH customers are transitioned to HH arrangements. The transition is a critical step and decisions will be required on how long parallel systems and legacy services (like profiling) should be maintained. This is to ensure participants understand their obligations and can plan accordingly. It may be appropriate to consider how costs are allocated for using legacy systems and processes for a reducing meter population to create appropriate incentives to transition to the new.

During Ofgem's development of the approach to the governance and project management of this work, it would be beneficial for ELEXON to be part of the discussions given our central role in enabling HHS and our technical settlements expertise. ELEXON is well placed to take a leading role in the development and implementation of this work programme given our technical skills, knowledge and leadership in this area. Our development of the BSC Panel report, Delivering Settlement Reform, which was provided to Ofgem in 2012 demonstrates our thought leadership and expertise in the area. We would welcome discussions with Ofgem to further explore where we can help to bring about the design and delivery of an efficient and effective HHS market.

**Question 2.2 Our Impact Assessment will evaluate the costs and benefits of mandatory HHS for domestic and smaller non-domestic consumers. We will be seeking evidence of costs and benefits as part of that process. Do you have initial views on the costs and/or benefits? If so, please provide these with your supporting evidence.**

In 2011, ELEXON and the Profiling and Settlement Review Group (PSRG) undertook a consultation and Impact Assessment (IA) on Mandatory Half Hourly Settlement for Customers in Profile Classes 1-4 and the Closure of Non Half Hourly Settlement. The conclusions from the consultation were as follows:

a) There was overall support for the principle of HHS. However, the majority of respondents felt that it was too early [in 2011] to consider mandating HH settlement for the 29 million metering systems in Profile Classes 1– 4, as the structure of the smart rollout and the scope of the Data Communications Company (DCC) were not clear;

b) The majority of respondents were unable to quantify the costs to their company from such a mandate as the future business process could not be defined in sufficient detail at this stage; therefore it was not possible to

carry out a full cost benefit analysis as there was too much uncertainty around the smart metering solution and particularly the scope of the DCC; and

c) The majority of respondents felt that there could be benefits in using HH data in settlements, particularly in terms of data accuracy and in relation to customers on time of use tariffs. However it was not clear that these benefits would outweigh the costs of mandating HH settlement so a firm conclusion was not possible.

Now that the DCC arrangements have been clarified, a robust IA can now be undertaken in this area.

In regards to HHS costs and benefits some lessons may be gleaned from ELEXON's Cost Benefit Analysis (CBA) for BSC Modification P272 'Mandatory Half Hourly Settlement for Profile Classes 5-8'. Both the Detailed Assessment for P272 and Ofgem's Regulatory Impact Assessment (RIA) identified a wide range of potential outcomes, in terms of costs and benefits, for a relatively small market sector of around 155,000 customers. The Ofgem RIA concluded that in most scenarios the outcome was cost neutral, however, these both highlight the difficulties is assessing change where there is uncertainty. We believe that respondents to this question will struggle to give any useful views on costs and benefits at this point without a clearer definition. Ensuring the TOM is clearly defined and understood will help industry parties assess and understand the costs and benefits and will be crucial in the undertaking of a robust IA.

## CHAPTER: Three

**Question 3.1 Do you think we have identified the necessary reforms? Are there other reforms that should be listed? If so, what are they and how would they fit in the proposed plan?**

There are two additional areas of consideration that should be included in the scope of the consultation, the treatment of unmetered supplies (UMS) and transitional arrangements.

An UMS is any electronic equipment that draws a current and is connected to the Distribution Network without a meter recording its energy consumption. Many UMS are covered under the NHH arrangements. To have fully mandatory HHS market arrangements, the approach to transitioning NHH UMS metering systems to HH arrangements will need to be considered in detail and included in the consultation scope. If this is not considered in the scope there is a risk that some of the benefits of having HHS market arrangements will not be achieved. For example, profiling processes will need to continue to facilitate the small number of NHH supplies in the market. ELEXON has expert knowledge in the settlement of UMS and can offer our expertise to Ofgem to help include this consideration into the consultation scope.

As the market transitions from NHH to the new HHS arrangements there needs to be consideration how existing NHH arrangements will be treated. ELEXON supports NHH data collector and aggregator software to facilitate the NHH settlements processes. Supporting two separate processes is not efficient in the long term and the NHH process should eventually be closed down. The point at which this occurs could potentially be when a critical number of sites have moved from NHH to HH or a specific date in time. It may also require a new process that allows NHH sites to be included in the HH system. This should be part of the scope of work of settlement reform.

**Question 3.2 What industry expertise is needed to deliver these reforms in the timetable we have given?**

Expertise from industry, code bodies, consumer representatives and industry governance bodies will need to be required to deliver these reforms. The terms of reference of the Settlement Reform Advisory Group (SRAG) was an effective model as it drew together stakeholders from Department of Energy & Climate Change, Ofgem, DCC, Citizens Advice, National Grid and industry participants. This was an effective model as the SRAG discussions could draw on the expertise in the relevant area as required. It is important that customer representatives are also consulted and their views incorporated as this change will ultimately benefit and impact on the end consumer.

**Question 3.3 How much expertise and time can your organisation provide? How does this interact with other Ofgem initiatives?**

# MANDATORY HHS RESPONSE FROM ELEXON

ELEXON currently provides leadership and technical expertise to Ofgem on HHS and other related Ofgem initiatives such as faster customer switching. ELEXON has driven a number key changes required to facilitate the use of HHS for customers and suppliers who wish to settle using half hourly meter data (elective HHS). These changes are due to be implemented in the first half of 2017 and provide a solid foundation for the efficient implementation of mandatory HHS.

As highlighted in our response to question 2.1, ELEXON would welcome a discussion about our role in helping Ofgem bring about the design and delivery of an efficient and effective HHS market. The established ELEXON and Ofgem model where specific work packages are agreed every quarter could be used to facilitate this work going forwards.

However, ELEXON's capacity to support this work is dependent on other industry change as well as challenges posed to ELEXON's existing role and governance. We maintain a forward view of industry change and a systems roadmap which indicates a period of significant changes between now and 2020. ELEXON will need to allocate resources to addressing the proposals to becoming a licensed entity and competition for our role under Ofgem's code governance reforms. Significant transformation to the ELEXON operating model will require the allocation of significantly more resources which will impact our ability to support central projects.

**Question 3.4 What are the key risks and constraints to delivering to the timetable outlined?**

The options for the TOM will need to be agreed and consulted on before an IA is launched on the preferred model. ELEXON and industry will need to understand the proposed TOM in order to provide detailed costs, benefits and impacts. Iterative IAs may be required as the issues are better understood, this was the approach taken with Modification P272. ELEXON consider it a challenge for Ofgem and industry to be in a position to make a decision by early 2018. Additionally, ELEXON is constrained from making any changes to the central systems until a final decision has been made and the TOM defined. Therefore, the lead times for central system changes cannot be defined until the TOM is finalised, which would push any central system change decisions until after the decision in early 2018. This may also have BSC implications on the planning of BSC systems changes and procurement of service providers during this time.

Another risk is the management of other changes which are being designed, assessed and delivered during the period that this review is taking place. The volume of change requests that ELEXON is experiencing is at its highest level since our establishment in 2001. There is a risk that the significant number of piecemeal changes may take precedence and impact the availability of resources for key central projects, the prioritisation of work and delivery of market change. The introduction of the consultative board may go some way to help manage the large amount of change and prioritise strategic and other change.

**Question 3.5 Do you agree with the dependencies in Figure 1? If not, please explain what changes you suggest and why.**

Figure 1 details a draft IA but does not define its scope. Therefore, it is unclear whether this will define a potential TOM for an IA or provide a range of potential TOMs for a subsequent IA. In the key products section of the consultation the TOM comes before the IA, however in Figure 1 it suggests the IA comes before the draft TOM. Clarification of the detailed process is needed.

**Question 3.6 What are the barriers to making changes to central systems and industry rules by the first half of 2018?**

With reference to the response provided above to question 3.4, ELEXON do not believe that under current arrangements work can be started on central systems or industry systems until, both a decision to proceed on mandatory HHS has been made and a preferred TOM agreed. As such, depending on the level of impact of the final TOM and other changes that are expected to be addressed over the next few years, it is unlikely central systems or industry systems could be ready by the first half of 2018. It may be possible that the defined changes can initially be accommodated by the existing system but this is not a sustainable long term solution.

Furthermore, we believe in the longer term that more 'revolutionary' and fundamental changes to the wholesale market including BSC central systems will be required in order to meet the demands of Demand Side Flexibility. HHS will need to be considered in this context so that any changes can deliver the potential significant benefits to the end consumer.

**Question 3.7 Do you have any other comments on the proposed plan?**

The plan does not detail any interactions with the regulatory and policy work on flexibility. We refer you to our response to the joint Ofgem/BEIS consultation on Flexibility. It is important that these are all considered together to ensure the TOM is designed in a way to promote flexibility rather than constrain it.

We believe that to enable the development of demand side flexibility and smart grids mandatory HHS should be designed in a way that provides the required HH meter data (in a timely fashion) to those actors in the market that may need the information to develop these services. For example aggregators, storage parties, System Operator, Distribution System Operators, Suppliers, government bodies, and other third parties who may be providing services direct to the customer and who will need access to HH meter data.

## CHAPTER: Four

**Question 4.1 Do you agree with the conclusions of the ESEG and the PSRG (see paragraphs 1.8 – 1.10.)? Do you think anything has changed since they considered these issues?**

ELEXON agree that the work already undertaken in this area by the PSRG and SRAG, not referred to in above questions, and Electricity Settlement Expert Group (ESEG) will need to be built upon. As outlined in our response to question 2.2 proposals have been hard to asses due to uncertainties around the smart meter roll-out and lack of defined processes for smart meter data. This is largely due to the Smart Meter Implementation Programme's (SMIP) focus on getting smart meters installed with appropriate communications. The associated smart metering processes were largely overlooked prior to the convening of the SRAG. The implementation of the SRAG recommendations can be utilised for mandatory HH Settlement, such as the new data flows and processes. However, much will depend on the TOM for mandatory HHS.

**Roles and responsibilities (see paragraphs 4.2. – 4.7.)**

**Question 4.2 Do you agree with the scope of issues identified in this section? Are there any others we should be considering? Settlement process (see paragraphs 4.8 – 4.17.)**

As stated above in our response to question 3.7, interactions with the regulatory and policy work on demand side flexibility needs to be considered alongside HHS.

**Question 4.3 Do you agree with the scope of issues identified in this section? Are there any others we should be considering?**

Please refer to our response to question 4.2.

**Policy enablers (see paragraphs 4.18.– 4.27.)**

**Question 4.4 Do you agree with the scope of issues identified in this section? Are there any others we should be considering?**

Please refer to our response to question 4.2.

**Consumer issues (see paragraphs 4.28.– 4.38.)**

**Question 4.5 Do you agree with the scope of issues identified in this section? Are there any others we should be considering?**

# MANDATORY HHS RESPONSE FROM ELEXON

There is a balance to be struck between consumer protection and access to consumption data and information about controllable loads. Access to HH data by existing parties, aggregators and other new third parties will be required for forecasting, tariff design and customer service offerings. Access to this information allows parties to develop better solutions for consumers which can encourage innovation and competition. For example Suppliers can only access data for their own portfolio at an aggregate level which means they can only design solutions based on the limited data available to them, this could stifle innovation. Potential demand side response and aggregator product offerings could also be impacted by lack of transparency of meter data for controllable loads.

We also believe that although HHS will be more cost reflective, some vulnerable customers, may not be able to access the benefits (e.g. in all electric premises such as flats where electric heating is the norm and heating load control is not possible). As such consideration will need to be given to ways to help such customers access the benefits of HHS or benefit from the wholesale market process of settling HH meters (e.g. more accurate settlement of those that can be settled HH and a resultant reduction in errors in settlement).

## CHAPTER: Five

**Question 5.1 What is the best way for us to use the expertise of stakeholders? What have you found helpful in the past?**

Please refer to our response to question 3.2.