Consultation Response

By email to smartmetering@decc.gsi.gov.uk

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Smart Metering Implementation Programme
DECC
3 Whitehall Place
London SW1A 2AW

ELEXON's response to DECC consultation on the second version of the Smart Metering Equipment Technical Specifications

We welcome the opportunity to respond to this consultation.

We have only answered those questions in the consultation which impact on or have parallels with our experiences of managing the Balancing and Settlement Code. Our answers therefore centre on the management of metering requirements and delivering a centralised Industry assurance regime, and the lessons we have learned in doing so.

If you would like to discuss any areas of our response, please contact me on

Yours sincerely

A consultation on SMETS2

Chapter 19: Role of DNOs – content

Question 19: Do you agree that maximum demand registers should be included in SMETS2? Please provide evidence to support your position and provide evidence on the cost implications of delivering this functionality via back office systems or via the meter?

ELEXON has no strong preference for whether maximum demand registers should be included in SMETS. We do, however, have an interest in how Supplier and DNO access to collect maximum demand readings and reset maximum demand registers (given the risk of conflict) will be managed, as this has implications for GB electricity settlement processes. We set out for reference how MD registers are used for Settlement below. We would welcome the opportunity to discuss this further, once a decision has been made.

In terms of the two options presented, Option 1 (in the meter) would provide a 'true' (power) maximum demand, whereas Option 2 (in 'back office' systems) would provide an average energy value. The latter would probably be sufficiently accurate for the settlement purposes of Profile allocation and establishing whether the mandatory half hourly metering threshold has been exceeded.

Use of maximum demand in BSC processes

Under the current BSC arrangements, a Non Half Hourly Metering System that records Maximum Demand is allocated to one of Profile Classes 5 to 8. These Profile Classes are differentiated on the basis of a load factor, which is the actual demand metered expressed as a percentage of a notional maximum demand value. The Supplier of a Metering System in Profile Class 5 to 8 is required to carry out an annual review of the load factor to ensure that the Metering System is assigned to the correct maximum demand Profile Class. The calculation is performed on behalf of the Supplier by the Non Half Hourly Data Collector (NHHDC) who needs to take regular readings of the maximum demand register.

The NHHDC also uses monthly maximum demand readings to determine whether a Metering System qualifies as a "100kW Metering System" and thus meets the criteria for mandatory half hourly metering. After each monthly maximum demand reading is taken, the NHHDC will reset the maximum demand register. The NHHDC provides maximum demand readings to both Suppliers and DNOs for their respective purposes.

The BSC processes make use of maximum demand readings for Profile Class allocation and to determine whether mandatory half hourly metering is required, but there are no BSC requirements for maximum

demand readings to be collected. This is a DNO requirement, hence our observation that we have no preference

Question 28: Do you agree that randomisation offset capability should be included for auxiliary load control switches and registers as described above? Do you have views on the proposed range of the randomisation offset (i.e. 0 – 1799 seconds)? Please provide evidence on the cost of introducing this functionality.

We recognise that randomisation is necessary for system management purposes and therefore endorse the capability being provided. Our comments relate to the extent of the randomisation that will be supported.

Heating loads for Radio Teleswitch customers are profiled for Settlement purposes using notional switching times (rounded to half-hour boundaries). Offset in actual switching times result in profiling inaccuracies. This situation occurs already the case because of offsets within the Radio Teleswitch Service and randomisation by traditional, non-smart meters.

In order to minimise the impact on Settlement accuracy, we would support the smallest randomisation offset (preferably at or near the half hour), that the generation, transmission and distribution companies consider is needed to avoid stress on the energy supply system.

Whilst not a BSC issue, customers on Time of Use tariffs, where load (e.g. a washing machine or dishwasher) is switched by the customer in response to price signals, could experience confusion if actual register switching times are offset too far from the notional switching time. Close alignment of these is therefore beneficial to the customer.

Question 29: Do you agree with the proposal that the communications hub should be specified such that it can support multiple smart electricity meters? How many smart electricity meters should be supported by each communications hub?

We agree that the communications hub should be specified to support multiple smart electricity meters.

The consultation notes that "one issue to be addressed in developing this service (i.e. support for microgeneration meters) will be the availability of data to allow DCC to perform access control in respect of FIT metering points". We believe this issue relates not only to generation meters, but also to export meters which are registered under the FIT scheme, but are not registered for Settlement purposes. The registration of export is not mandated under the BSC and there are currently export meters that are not registered in the "robust, automated systems managed by DNOs to support the change of supplier

process".

Question 31: Do you agree with the proposed approach to the governance of security requirements? If you propose alternative arrangements please provide evidence to support your views.

We agree with the broad approach to the governance of security and make some recommendation on how this should be established.

Expert Group

ELEXON agrees that it is appropriate to have an expert group responsible for the security regime. It is important however to ensure the SEC sets out a clear distinction between the roles and responsibilities of this group and the SEC Panel. It is likely that the SEC will need to draft an obligation on the SEC Panel to establish and maintain such a group, it is also likely that this group may need to consider some matters in closed session and therefore appropriate terms of reference and exemptions from publishing certain information will be required. If the SEC Administrator will be required to support this group, its roles and responsibilities will also need defining. It may be worth further consideration of whether the SEC Panel should be the appellant body for certain decisions taken by the security expert group. It is likely that where decisions are taken that may impact critical national infrastructure (CNI), the Code Panel would not be appropriate body. Instead it may be that specific powers of veto should be granted to Ofgem, DECC or DCC to ensure CNI is not compromised.

Change Management

It is clear from the consultation that the security expert group would have to assess each change to the SEC (and its associated documentation). As well as being required to provide a specific response to any impact assessment (clearly identifying a 'yes/no' if there are security impacts, with detailed comments of impacts), a representative of the group should attend and speak (but not necessarily vote) at any modification working group or Panel where a change impact security. To ensure that any changes are most effectively implemented the expert group should provide options for implementation that take account of the varied risks associated with each option.

It is important to note that changes that impact security of the DCC services are likely to result in contractual change for DCC and its service providers who will need to assess and address or mitigate any additional risk imposed on the central arrangements.

Role for DCC

The consultation quotes a number of representatives who should comprise members of the security expert group but fails to specifically identify the DCC Licensee as a key member of this group and the security processes. The DCC has the challenge of ensuring its CNI is not compromised by any devices connected to it. The Communications Service Provider also has to provide a key component of the smart metering solution within each customer premise, through the Communications hub device. The DCC (and its service providers) therefore have a critical role in the governance of the security of the end to end smart metering infrastructure.

Question 32: Do you agree with the proposal to establish independent assurance procedures for DCC and DCC users? Please explain your views and provide evidence, including cost estimates where applicable, to support your position. Comments would also be welcome in relation to the impacts and benefits of the proposed approach with regard to small suppliers.

We agree that independent assurance procedures should be established.

Independent assurance should provide an appropriate level of comfort to DCC Users and Ofgem and this practice is used elsewhere in the industry where individual service user actions may commercially impact other users (e.g. the independent BSC Audit process and Technical Assurance processes). Critical to the success of this however will be developing a robust scope for the assurance regime.

We infer from the consultation that the scope will probably be set by the security expert group and this seems the right place for the responsibility to sit. In addition to any 'scheduled' assurance activities, such as initial assessment/certification and revisits, the SEC Panel should be provided with the option to request ad hoc security assessments or revisits where it believes that a security risk has arisen.

With regard to small Suppliers, we agree that a proportionate regime could be applied to the perceived risk and this is an approach that is already used in the industry (e.g. the BSC Performance Assurance Board (PAB) applies a risk based regime to assurance to ensure the requirements on small participants are proportionate). It is important that all users are subject to a minimum set of requirements for any critical security risks regardless of their size, as any compromise in security for critical functions may impact all users.

One mechanism to manage the burden on small users is to apportion costs across the user community in proportion to their size.

Question 33: Do you agree with the proposal that re-testing should occur at least at set intervals and more frequently when significant changes to systems or security requirements are introduced? Please explain your views.

We agree that it is sensible to establish a regime where assurance can be flexed to meet the changing risk landscape. This could take the form of obligation for re-testing at set intervals.

In our experience an even more flexible approach is better suited to managing assurance. Instead of fixed periods for retesting, the risk can be better managed through targeted assurance. This can take the form of:

- revised assurance obligations/testing being introduced alongside a significant change to systems/processes (which can be determined as part of any change impact assessment); or
- specific provisions for the SEC Panel/security group to request additional assurance testing or targeted device/user testing/audit where a potential risk is identified or non-compliance suspected.

Question 35: Do you agree that sanctions for non-compliance with security requirements should be included in the SEC? Do you have views on the nature of the sanctions that might be imposed?

Yes, without the ability to incentivise users to adhere to their obligations or to correct non compliances the obligations are worthless.

There should be a range of gradual options open to the SEC Panel (or any committee it establishes to manage compliance) that they can apply at their discretion based on the nature of the non-compliance and any risk or consequential impact on other users.

Based on the types of powers available to existing industry codes Panels, the options could include:

- Request for rectification plans
- Additional assurance applied to the user (potentially at their own cost)
- Additional reporting obligations applied to the user
- Limitation of DCC services
- Removal of DCC services
- Expulsion from the SEC

Question 37: Do you agree that interoperability is central to the development of a successful smart metering solution and that activities related to the assurance of SMETS equipment should be governed by SEC? Please provide views on the governance arrangements that would be appropriate for assuring interoperability of smart metering equipment.

We agree that interoperability is critical to the success of smart and the SEC is the right vehicle to ensure there is a comprehensive assurance regime that comprises interoperability as well as security. If approved test houses are used to certify equipment the SEC Panel process for approval should be relatively straight forward. The SEC Panel should determine if it requires a committee to undertake further activity associated with approval or whether approval can be delegated to the SEC Administrator. If such a committee is needed it may be possible to combine this with activities of other SEC committees (change committee or security committee).

The success of the interoperability regime will rely on setting the correct scope for any testing/certification activity.

Question 48: Do you agree with the creation of an approved products list and the requirement on suppliers and CSPs to obtain, retain and provide evidence of appropriate certification should apply regardless of whether they intend to enrol the equipment in DCC?

We believe a list of approved products is a sensible proposal as it allows for existing and new users to simply identify if commercial products meet the desired standards and can interoperate with other devices. The SEC should place an obligation on the DCC Licensee or the SEC Administrator to maintain and publish this list.

ELEXON has maintained an approved list of metering equipment for many years which is a useful tool for industry participants in confirming the suitability of metering equipment for settlement purposes. We would propose that we would provide a link to any list of SEC approved metering equipment list and that whoever maintains the product list for the SEC approved electricity metering should do the same for the BSC approved list (with each site carrying a suitable explanation of what each Code is responsibility for).

Question 48: What are your views on when responsibility for the SMETS modifications process should transfer from the Government to the SEC?

We agree that the transfer should only occur when a stable and baselined version of the SMETS has been approved by the Secretary of State and the SEC Governance is established with a SEC Panel (supported by a SEC Administrator or equivalent body) in place.

Question 49: Which of the options (standing sub-committee or non-standing sub-committee) would you prefer in relation to modifications to the SMETS?

We would suggest that neither option should be mandated. Instead we believe it will be more

appropriate to allow the SEC Panel to determine how it manages changes to the SMETS (as well as any other associated SEC documents). Whilst changes may be requested to the SMETS in isolation, there are likely to be changes which cut across the SEC, SMETS and other documentation which would require broader consideration than just a technical group. For this reason it is more appropriate to give the SEC Panel flexibility over how it manages change. This approach has worked well under the BSC.

For more information on our response, please contact