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Dear Emma

Review of Current Metering Arrangements

Thank you for the opportunity to respond.

As your letter mentions, the review was promised after the lapsing of the Meter Asset Provision (MAP) and Meter Operator (MOP) of last resort obligations of the electricity Distribution Network Operators (DNO's). Last resort obligations remain with the gas distributors (DNs). The delay until a government decision on Smart was helpful, as we now have the opportunity to take a holistic view.

Overall, we would like to say that getting metering right is of the highest importance in the attainment of the policy goals of clean, secure, affordable energy, in a competitive market. A common saying is that you can manage what you can measure, and this does apply to energy meters.

Noting that you will be writing to us later, and that you are interested in views now about appropriate scope, we have pulled some key themes from your letter, and made some initial comments that we hope are helpful. We have also added some themes that are not mentioned in your letter. Conscious that this is the first stage of your consultation, we have introduced each argument only very briefly.

We hope to have the opportunity to discuss each of these, whilst recognising that the scope cannot cover them all.

We believe that the three priority areas for discussion are; i) interoperability, ii) consideration of fit for purpose metering functionality in the world post 2020, iii) managing the transition to smart.

In reviewing the past, it seems clear that whilst the unbundling process was well intentioned, that de facto market power and an insufficiently clear divide between regulated and deregulated metering businesses, led to some issues and concerns that we would not wish to repeat.

Yours sincerely



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1 Asset provision and rental, and physical services

1.1 Price regulation

Whilst meter asset provision is in theory unregulated, the MOP cost of visit is significant in comparison to the asset value, and hence there is a friction cost to change meter. Whilst this reduces stranding risk to the incumbent MAP, or the supplier with a rental termination cost, it has the risk of creating some aspects of de facto monopoly. For this reason, it is likely that there may need to be regulatory oversight of rental fees and arrangements. This is particularly the case in smart metering where the asset value is much higher than for traditional meters, and the value difference between actual specification (on which the MAP will seek rental fees) and minimum specification (on which the gaining supplier may seek rental fees), may be significant. The experiences of regulated metering and of the deregulation process should guide us in this regard.

Similarly, metering services in independent gas networks are de facto monopolies but with a relatively low degree of regulatory oversight.

1.2 Unbundling generally

The benefits of the review of gas and electricity metering arrangements (RGMA/REMA) were in practice more elusive than was intended. The long debate on smart meter bundling between supplier and DNO/DN concluded with a supplier led model. Whilst an exhaustive review of these may inform us with respect to de facto monopolies or dominant positions, we do feel that supplier/DNO/DN unbundling is now the industry model in place, and the current starting place. We believe that re-opening this debate would be a distraction.

Regarding the current bundling of MAP and MOP services (in “electricity-speak”) as part of the MAM activity (in “gas-speak”), we do believe that this should be reviewed. Whilst there is no regulatory requirement to bundle the MAM services, it is a commercial practice only to offer bundled MAM, and therefore not allow separate MOP appointment. This is a barrier to competition, as a gaining supplier has practically to choose between bundled MAM or a meter swap out. This experience may be relevant in the future. An additional experience of RGMA that will inform the future is the relative ability of a supplier with high procurement power can determine high rental fees in exchange for other benefits such as file formats and other arrangements that create a competitive advantage by reducing interoperability.

1.3 Regulated and unregulated metering businesses, and meter rental

We do recognise that a regulated business that has some metering of last resort requirements, may wish to develop a deregulated metering business. However, we believe that this is generally undesirable from a competition perspective, and that if any business owns regulated and deregulated businesses, that the regulatory oversight must be sufficient, particularly if assets or resources move between the businesses. Naturally this is in addition to the oversight of rental fees where a player has a position that may be dominant.

Regarding “last resort” obligations of distribution network operators, we believe that it is worth aligning gas and electricity arrangements, as far as is possible, recognising that the safety issues relating to gas are different to those for electricity. These differences will be reflected in emergency services (PEMS for gas and UMetS for electricity), safety inspections, tampering and theft.

The failure to place binding requirements on distributors to provide urgent metering services where they are not the appointed metering agent continues to be an issue. This is particularly the case in areas where the distributor has withdrawn from providing new and replacement meters and of metering

services. There has been little progress within the industry to develop UMetS which we envisage could cause difficulties during the roll-out of smart metering. Without a universal solution customers may experience significant disruption as a result of the failure to resolve a meter fault during the first visit by the distributor. A similar issue exists with IGT networks and PEMS. We therefore believe that UMetS and PEMS should be included within the scope of the review.

2 Smart and the transition to smart

2.1 Stranding

Stranding remains a significant issue for smart. It relates principally to recertification (stranding traditional meters) and interoperability (stranding smart meters). These issues have been significant enough with traditional meters and PPMs for the experiences to deliver useful insights for the future.

2.2 Interoperability

There have been several instances where a supplier has rolled out a particular meter technology that is incompatible or not easily compatible with other supplier's systems and processes, and creates de facto industry arrangements. Since a gaining supplier can always swap out the meter, there is a tension between innovation and the friction costs of meter swap out. The experiences of previous instances may give important insights into potential future instances.

2.3 Recertification

Whilst this issue does not relate directly to the review of metering arrangements, the industry rules under smart, the transition to smart, and the Measuring Instruments Directive (MID), and the Electricity Act 1989, all have the potential to add significantly to meter management costs. We recognise that the technicalities of meter calibration falls largely outside the jurisdiction of the energy regulator, but note that the measurement errors from the drift in meter calibration, are small compared to the costs that are socialised within current industry arrangements. Reconciliation by Difference and the Annual Quantity processes in gas are cases in point, but smoothing/smearing/socialisation are present in almost all aspect of consumer cost. The spend of recertification / policy replacement, therefore appears to be disproportionate. We are glad to see that Ofgem is working with the National Measurement Office and the Industry Metering Advisory Group, and hope that the testing and consequential replacement requirements for both the pre and post MID meters, will be proportionate in smart and the transition to smart. We believe that the review will be helpful in establishing what is proportionate.

2.4 Access to meters

The degree of required access to meters in smart world is somewhat dependent on the outcome of DataCommsCo. The restrictions on agent appointment, for example in the business sector, on independent networks, and in gas MAM, give useful insights into potential future issues regarding physical and data interactions with meters.

3 Meter reading, and information flows

In electricity, the MPAN is generated by the DNO because the meter cut out determines the physical end of distribution service. The DNO MPAS's feed the electronic online system ECOES. Any data quality issues in MPAS are therefore fed through to ECOES. The situation is similar in the gas market in terms of meter asset information on Sites and Meters and therefore SCOGES.

There have been instances where it would have been to consumer benefit to use ECOES and SCOGES to consumer benefit. For example, identification of off gas grid consumers for the purpose of paying them a discount, and “potentially vulnerable” indicator, to enable consumers to change supplier and maintain the flag to indicate that they may need support. There are many further potential uses, such as cross reference with the Home Energy Efficiency Database. However, both data incompatibilities, and the necessary processes to comply with the Data Protection Act, have hampered such extended use. Since energy policy and consumer benefit could be achieved by the better marriage of individual eligibility, consumption, and home asset data, then the experiences to date can inform the future.

3.1 Asset tracking and ownership, triangulation

Distributors, agents and suppliers all hold different information about meters, with different key fields and different methods of updating their records. As a result, the triangulation of postal address, meter point administration/registration number, and meter serial number is necessary to ensure consistency and data quality across the industry. However, the triangulation instigated in the Customer Transfer Programme (CTP) was never fully implemented. In addition to this, ECOES is imperfectly updated by MOPS, and ECOES and SCOGES use different postal address formats.

3.2 Prepayment

Prepayment Meter Infrastructure Provider (PPMIP) systems have used a different primary key for meters to all other systems. The PPMIP PAN identity can therefore become decoupled from the MPAN. This has caused problems in tracking down meters/customers from payment flows, which in turn has affected suppliers’ ability to help customers by replacing their meters, particularly token meters.

3.3 Safety Inspections

SLC12 requires suppliers to make all reasonable steps to attempt to inspect meters for safety every two years. It is in practice difficult for gaining suppliers to find the most recent inspection date as the NOSI flow (instigated by the CTP) does not always give this information as it is non-mandatory and although the gas transporters do send this information it is unreliable.

Whilst in traditional world, the meter inspections did not incur a very large extra cost, as data retrieval by an agent involves a safety inspection, the increased use of Customer Own Reads, and the lack of necessity of visual read in AMR/Smart meters, does mean that the safety inspection now has a high cost.

Clearly, jurisdiction on safety lies within the HSE, but suppliers have to make the judgement on what steps are reasonable to assure safety. A review of the past experience in meter safety would be useful as we have not seen evidence that safety inspections improve safety, as meters tend not to become unsafe in such a manner that an inspection would diagnose a deterioration (as distinct to consumer intervention), and danger due to tampering is quickest and best diagnosed through changed patterns of metered consumption. It may be that, with less visual reads by agents, that a different approach will maximise safety for any given total cost.

4 Industry arrangements

4.1 Agent appointment in the business sector

Whilst the scope of the review is aimed at the residential sector, there are some related matters in the business sector that are worthy of review. One such aspect is the right of the consumer to appoint an agent. Because only the appointed agent can access a meter, then a supplier can only access a meter with a customer appointed agent by requesting that the agent access the meter. The supplier cannot

appoint an agent. This creates a problem in the debt collection process, as the agent will generally not take a disconnection instruction from a supplier. The supplier therefore takes on credit risk for all new customers, at a cost that is thence reflected in prices.

4.2 Supplier hub

The supplier hub model is integral to the operation of the industry. Whilst supplier hub can be maintained in traditional world, it will experience challenges in smart world, due principally to potentially complex agent agreements relating to meter communications, and in direct control of consumption, either remotely or downstream of the meter. The operation of the supplier hub model in traditional world seems worth reviewing.

4.3 Energy Reconciliation

Currently, the reconciliation between the aggregate of consumer meters, and the distribution exit meters, is poor. Hence electrical losses, gas shrinkage (leaks and gas used for compression), and theft are not well accounted for. In gas, reconciliation is particularly difficult due to the linepack gas in the pipes, and the lack of current reconciliation enshrined in the Annual Quantity process. The accounting balance is restored by Group Volume Correction in electricity and Reconciliation by Difference (RbD) in gas. The weak process has caused suppliers to absorb the cost of long standing errors in distribution exit meters. This has been extremely disappointing, particularly when the shrinkage incentives give potential windfalls to distribution networks. Aggregation of consumer meters could in future not only provide better indication of errors in distribution exit meters, but in addition could be used more effectively to identify theft. This is possible in traditional world and on the smart transition.

4.4 Independent and local networks

For the independent gas transporters, metering is generally bundled with the network. This means that not only can a supplier not appoint a MOP but it cannot appoint a MAP without duplication of charges. This is a significant issue regarding the installation of a prepayment meter, whether by customer request to pay-as-you-go, or as a means of managing the repayment of debt. IGT's are unwilling to readily facilitate the fitting of prepayment meters and standard industry data flows have yet to be developed to support IGT customers with PPMs switching supplier.

Independent networks also have other arrangements that have compatibility issues. For example, meter point registration and file formats. Ideally the review would cover these incompatibilities and consider the possibilities of alignment.

4.5 Industry flows

Currently industry data quality is poor (or could be better) which does impact on supplier's ability to bill correctly and service the customer. Industry data flows were constructed to enable the opening up of the domestic market in 1998 and have remained largely in place despite the changes that were subsequently made to enable metering competition. Over the years, data flows have changed, and extra detail, and new flows have been added. In smart world, data flow will be very different, but the existing flows should all be checked to see if their function is covered in the smart design. In addition to this, the Data Transfer Network and the UK-LINK (IX) will be required throughout the smart rollout, and hence some compatibility between smart and traditional will be required. The past experience of continual adding of data flows will be useful to determine whether the data flows should evolve or be enshrined in the initial design to the greatest extent possible.

4.6 The meter point registration systems

The gas and electricity systems are very different. The electricity system MPAS originates with the DNO's who populate them as the primary record of the service termination at the ends of the networks, and the MPAS's populate the online system ECOES.

Gas is driven by Xoserve and the replacement of the online SCOGES system suggested by SPAA has put on hold.

The result is very different governance arrangements, access arrangements and the data contained on the respective databases.

Registration will be very important in smart world. Whilst the two key purposes are likely to be to maintain databases for the service terminations of the networks, and registration of incumbent supplier, there use is likely to be much wider. At present, ECOES and SCOGES have basic incompatibilities such as different formats for storing postal addresses – which created problems in early attempts at datashare for a social tariff programme.

5 Directives, Regulations, Laws, Licence Conditions and Codes

There is a large number of these, and there are inevitably some conflicts and incompatibilities between them. We believe that it is worth considering all of the relevant rules etc. with a view to minimising incompatibilities. We believe that key areas are; i) safety , ii) metering standards, iii) data protection and human rights, iv) data needs to achieve energy policy goals, v) gas and electricity compatibility, vi) incorporation of independent network rules to the distribution network rules, vii) telecoms rules, viii) the best consistent view on “reasonable steps”, where there are conflicts, incompatibilities, and disproportionate costs.