



*Promoting choice and
value for all customers*

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Dear Ngaio

**Energy Billing and Metering: Changing Consumer Behaviour consultation,
August 2007**

Ofgem welcomes the opportunity to respond to BERR's consultation on Energy Metering and Billing. Introducing smarter forms of metering for domestic and business electricity and gas customers could help to improve customer service, increase energy efficiency (helping to reduce greenhouse gas emissions), reduce fuel poverty and increase security of supply. In support of these objectives, Ofgem has taken a number of measures to facilitate smart meter roll out including removing obstacles in the supply licences, convening discussions on interoperability and managing the trial which BERR is conducting with suppliers¹.

We have given careful consideration to the proposals contained in the consultation document. This letter sets out our high level comments and answers to the specific consultation questions are attached as an annex.

The proposals for domestic energy billing and metering set out in the consultation document go some way to recognising that any government action (whether to meet carbon targets or to achieve compliance with the Energy Services Directive) needs to be proportionate and no more prescriptive than necessary. Government's billing proposals show that it can take the lead in encouraging changes in consumer behaviour, while leaving room for suppliers to innovate, experiment and compete in the services they offer their customers. In direct contrast, and as we have noted before, the proposal to require suppliers to provide electricity clip on visual display units for an interim period is a costly intervention that is unlikely to deliver any benefits and will distract suppliers and delay the introduction of smarter meters². We are particularly concerned that

¹ Domestic Metering Innovation – Next Steps, June 2007 Ref 107/06

² Letter from Steve Smith to Claire Durkin 16 October 2006, and Ofgem's Response to DTI's consultation on metering and billing, February 2007 Ref 22/07

offers of a free display are likely to be taken up disproportionately by better off customers but the costs will be paid for by all customers including poorer and more vulnerable customers.

Suppliers have strong incentives to introduce smart metering to provide their customers with energy management services and improved customer service given the high and volatile energy prices of the last few years and the prospect of them continuing given the challenge of reducing carbon emissions to tackle climate change. This is demonstrated by the innovation from suppliers in the business market where a number of suppliers are now offering and installing smart meters to their customers and where customers can choose to move to suppliers who will provide smarter metering. We think the 5 year rollout programme to the business market that the government proposes to mandate is counterproductive and raises all kinds of compliance and implementation issues which do not in themselves contribute to carbon reduction. Our attached response contains some suggestions on how government might comply with the Energy Services Directive in a less prescriptive way.

For domestic customers, government has signalled that it recognises the benefits of intervening to the minimum extent possible to deliver on its 10 year vision for smart meters. We would urge government not to adopt measures (such as the regional franchise model proposed by the larger suppliers) which are unnecessary to deliver smart meters and that would leave domestic customers to carry the risks associated with expensive meters and poor technology choices for decades to come.

Suppliers are entitled to argue that significant industry change and new areas of supplier co-operation may be required if we are to capture the key benefits of smart meters. However, this falls a long way short of making an effective case for abandoning the competitive market that is being established. We consider it is necessary to retain the key principles underlying this market, specifically:

- individual suppliers should make their own commercial decisions on metering;
- their interest in providing customers with services that they want, including the necessary metering for those services, should drive those decisions;
- customers should remain free to switch to suppliers who offer innovative metering, good service and competitive prices and move away from suppliers offering poor metering, service and prices; and
- individual suppliers, not customers, should bear the risk of poor decisions by suppliers on the wrong technology in metering and cost overruns.

The continued debate over the metering market model is stalling progress on interoperability and other important matters³ and we urge government to create a stable and sound policy platform for smart meter delivery as soon as possible. However, we consider it of utmost importance that government makes its policy decision on smart meter roll out only after a thorough and robust impact assessment that has been properly challenged through a rigorous consultation exercise. This step is essential as smart meter roll out will involve expenditure of billions of pounds on new technology and there is considerable uncertainty as to

³ For example, Elexon carried out work to look into the changes to the electricity balancing and settlement arrangements required once smart meters are introduced. Suppliers were unable to accept many of the recommendations, citing the need for greater certainty about government policy.

the quantum of benefits (industry and environmental) and how they will be distributed.

Concluding the detailed policy design on smart metering may take a number of months, possibly until May next year. In the interim ruling out some policy options will allow the industry to move closer to implementation. Without this clear direction, the debate will drift and smart meter investment plans for domestic customers will be further delayed. Once there is further clarity on the policy direction, Ofgem will be willing to play as full a part as necessary in ensuring that arrangements are put in place to enable smart meter delivery to domestic customers within the medium term.

Our specific recommendations are set out below.

A clear policy providing a credible basis for long term smart meter investment for domestic customers is now needed. We remain confident that, left to their own devices, suppliers would have begun to roll out smart meters to some domestic customers as they currently do (or are starting to) for business customers. The cost of smart meter technology is falling rapidly and there is a growing pool of knowledge about the nature and size of the benefits. However, uncertainty over Government intervention prevents some suppliers from taking these steps even where there is a business case (such as where customers have pre-payment and hard to read meters). The best way of overcoming this uncertainty is for Government to set out at a high level what it requires suppliers to deliver. This policy decision must be taken only after a robust and thorough impact assessment.

Government should rule out certain policy options to help industry to prepare for smart meter roll out. We join a range of other stakeholders in calling for Government to abandon the proposal to require suppliers to provide visual display units – and to do this by the end of this year. However, we have sympathy with Government's desire to give customers the tools they need to manage their energy demand as soon as possible and are frustrated by supplier claims that we have to wait many years before smart meters are routinely installed in domestic premises.

If there is to be a fast track to smart metering, it is vital that Government makes a decision regarding the market model this year. That is, Government should make it clear whether it supports our view that while significant changes are required to the processes underpinning the market it is essential to retain the competitive pressure on suppliers so that each bears the cost of its own decisions. A firm decision from Government will enable work on interoperability and industry process design to recommence and will focus attention so that we can bring forward the date at which the industry is ready to install smart meters.

Government should intervene to the minimum extent necessary to trigger a smart meter roll out. There is a very high degree of uncertainty around the carbon and other benefits associated with improvements to billing and metering, although we agree that they could be substantial and our understanding is improving. Smart metering technology and the associated communications infrastructure are developing rapidly. In this context it is vital that Government does not, through overly prescriptive regulations or an unrealistic timeframe for roll out, constrain the ability of suppliers to experiment with and adapt to technology change. Suppliers have made this point with regard to the proposed policy on visual display devices but it applies equally to domestic smart metering.

Minimum intervention could mean government asking Ofgem to work with industry to push through the changes needed to facilitate smart meters, for example with a licence obligation on suppliers to install meters on a new and replacement basis.

Minimum government intervention is not to be confused with a “do nothing” strategy. The specification of a smart meter, the appropriate communications platform and the reconfiguration of industry data flows are issues that could be addressed by industry governance bodies, with Ofgem’s oversight, once Government has committed to a clear overall policy direction.

Minimum intervention would not mean waiting for 20 years for smart meter roll out. In practice we anticipate that there is a relatively small gap between the timeframe for smart meter delivery under various policy options. We think that the confidence of suppliers in the ability of a regional franchise to deliver smart meters within 10 years is significantly overstated. There is a high risk of delay particularly in the design and preparation period which could significantly stall the date at which the first smart meter is installed. Conversely, it is overly cautious to assume that suppliers would take 20 years to deliver smart meters following a new and replacement mandate. Roll out will create its own momentum as metering costs fall and suppliers gain more certainty over the size of benefits available. If smart meters prove popular with customers then suppliers will have to accelerate their roll out or risk losing market share to existing or new suppliers offering smarter meters. It will only take one supplier to find a case for accelerated roll out to give other suppliers a strong incentive to increase the smart meter delivery rate.

Ofgem is keen to see progress in the work which has been started to facilitate smart meters and is ready to play its part in creating the arrangements necessary for smart meter roll out to domestic customers. We urge government to do all it can to end the current debate about the metering market model as soon as possible, and to create a policy platform for real progress on smart meter delivery.

Yours sincerely

Stephen Smith
Managing Director, Markets



Promoting choice and value for all customers

Ofgem response to

Department for Business,
Enterprise & Regulatory reform

ENERGY BILLING AND METERING
Changing Consumer Behaviour:
A Consultation on Policies
Presented in the Energy White
Paper, August 2007

31 October 2007

Annex

Annex 1:

Detailed consultation document question responses

Ofgem has replied to the questions we feel we are qualified to comment on. We have therefore not provided responses to the questions from Chapters 8 and 9 of the consultation document, nor to individual questions which we think are directed at other parties. Our detailed drafting comments on the draft SIs are attached to this response in annex 2.

Chapter 5 – Provision of historical consumption data on domestic energy bills

Information to be presented

5.3

What are your views on the information to be provided?

We welcome government's proposals to allow energy suppliers flexibility in how they present the information. This should allow suppliers to be innovative in the way they present historical consumption data and to consider how best to present the information so that it is of use to their customers. We would encourage government to ensure that, in the final drafting of the licence condition, it does not become more prescriptive.

However, according to the Energy Services Directive, member states have the flexibility to allow the information to be provided on or with the bill. Ofgem considers that this flexibility should also be allowed for in the requirement on suppliers. Suppliers are already required to include a substantial amount of information on their bills and cluttering the bill further may only confuse customers. If suppliers are given the flexibility to decide how best to provide their customers with this information (i.e. whether on or with the bill) then this may lead to a better outcome for the customer. We also note that there is an existing obligation on suppliers to present billing information in a clear and easy to understand fashion.

5.4

What are your views on the provision of corrected data or advice on uncorrected data?

We do not think suppliers should be required to provide additional information or amended consumption data to reflect changes in the weather or the household. Providing amended data would be complex and costly for the supplier to do and has the potential to confuse the customer even more. We also do not think it is necessary to put an additional requirement on suppliers to provide advice on uncorrected data. As it will be suppliers that receive individual calls from customers about the information, they will have incentives to decide whether and how they should pre-empt these calls.

Presentation of data

5.7

Is that the right approach to regulating the presentation of billing information?

We welcome government's proposals to allow energy suppliers flexibility in how they present the information. This should allow suppliers to be innovative in the way they present historical consumption data and to consider how best to present the information so that it is of use to their customers. We would encourage government to ensure that, in the final drafting of the licence condition, it does not become more prescriptive.

Business customers

5.9

Do you agree that these policies for billing should only cover domestic customers or would the comparative information be useful for the smallest businesses?

We agree that the policies for billing should only cover domestic customers. We believe that for business customers more interactive forms of information are likely to be more effective as many of these customers are on monthly direct debit billing and are therefore less likely to read their paper bills. However, we do not think that suppliers should have additional requirements in this area as most recognise that this is increasingly an important form of product innovation on which they can compete.

Energy efficiency advice

5.11

What are your views on the usefulness and cost of any additional energy efficiency information?

If you are a supplier, do you already provide or intend to provide complementary energy efficiency advice?

What scope is there for the development of more energy efficiency and energy demand management services in the business sector?

On the domestic side, suppliers already have a licence requirement and incentives through the competitive market to provide energy efficiency advice. Suppliers also have additional incentives to promote energy efficiency measures through the need to reach their EEC targets.

Business customers can receive advice targeted to meet their needs from specialist companies, public bodies or organisations, such as the Carbon Trust which has been established specifically to provide advice and assistance on energy efficiency. We therefore do not see the need for placing an obligation on suppliers to provide energy efficiency advice to their customers.

Would the provision of contact details for Energywatch or others be appropriate for this sector?

Under the current licence requirements suppliers have to provide information to domestic customers about sources from which they can receive advice about energy efficiency. Therefore, we do not think it is necessary to extend the signposting of energywatch to include it as a source of energy efficiency advice.

Furthermore, energywatch will be disbanded in 2008 and it is not clear that its successor bodies, i.e. NCC, Consumer Direct or the approved redress scheme(s), will be able or willing to provide this function. With this in mind, if government still considers signposting on the bill necessary, it should consider implementing something that will work under the new framework for consumer representation rather than requiring suppliers to amend their bills only to have to change them six months later. It is our understanding that energywatch currently signposts customers requesting energy efficiency advice to the Energy Savings Trust. Therefore, if any organisation is to be signposted on the bill as someone that can provide energy efficiency advice then this should be the Energy Savings Trust. However, as explained above we do not believe this is necessary.

Small Energy Suppliers

5.12

Should small suppliers be afforded additional time to implement this policy?

The Government needs to consider the views of all suppliers on the timescale of the policy implementation. If there is evidence that small suppliers should be afforded additional time for the implementation of this policy then the government needs to take this into account.

Draft statutory instrument

5.14

Do you have any views on the attached draft licence condition for this policy?

See drafting comments in annex 2.

Do you have any other comments on these policies to require the provision of comparative information on bills?

Any licence requirement should allow suppliers flexibility in how they present the information. The requirements on suppliers to provide comparative information on bills should be as least prescriptive as possible, in order to allow suppliers maximum flexibility to meet government's policy objectives, while being innovative in the way they present the information.

However, we consider that this flexibility should also allow suppliers to decide whether to provide the information on or with the bill. Suppliers are already required to include a substantial amount of information on their bills and cluttering the bill further may only confuse customers. If suppliers are given the flexibility to decide how best to provide their customers with this information (i.e. whether on or with the bill) then this may lead to a better outcome for the customer.

Chapter 6 – Provision of "time of use" consumption data to domestic users through real time display

Introductory section

6.5

What are your views about these approaches, and about the ways in which information could be provided via a smart meter in the longer term?

Ofgem remains opposed to the requirement on suppliers to provide display devices from next year. This is an overly prescriptive regulation which is likely to:

- result in wasted investment;
- distract suppliers from making the preparations required to roll out smart meters; and
- undermine the smart meter business case by reducing the additional net benefit that smart meters bring to consumers.

We are concerned that any early green benefits which may arise from such a requirement will be more than offset by a delay in the point at which domestic customers can make carbon savings via smart meters. This is an important consideration given that smart meters are expected to be significantly more successful in encouraging energy and carbon saving (through accurate display, time of use tariffs and allowing direct communication from the supplier) than self standing display devices.

We consider that the impact of requiring suppliers to install display devices on Government's wider smart meter expectations needs to be better understood before a final decision is made. We hope the work currently being conducted by Mott McDonald will address this question.

How might the risk of stranding self-standing displays be reduced?

Our understanding is that there is currently no affordable self-standing display that would be able to communicate with a smart meter installed at a later date. The likely outcome is that visual displays will become stranded when smart meter are installed. This stranding risk can only be avoided by allowing suppliers to focus on the roll-out of smart meters with integrated visual displays.

General requirements on provision of displays and transmission of information

6.6

Are there devices other than display devices that can be used in conjunction with an existing meter to provide this information?

We are aware of devices that can be used in conjunction with existing meters to provide, for example, half-hourly consumption data, by e-mail on a monthly basis.

Is it appropriate not to impose a standard for the accuracy of data provided to consumers from display devices?

We are concerned that the mandated roll out of visual display devices may increase customer confusion as the display reading will not always match the meter reading. Our understanding is that there is no self standing display which will accurately reflect real time energy use. These concerns would not apply to smart meters, as the display is linked to the meter reading and there are already accuracy standards in place for smart meters.

6.8

What are your views on such additional provision attracting CERT credits?

It is not clear that making additional provisions eligible for CERT credits would encourage suppliers to provide more provisions than required under any mandate, as they may still choose to take up other measures (such as investing in insulation) which might offer greater energy savings. We are also concerned that where there is a Government mandated roll out (whether for visual display devices or smart meters) it will be difficult to distinguish between investments which are "additional" and which should attract CERT credits, and those which have been provided as a result of the mandate.

Government may want to give some consideration to the use of CERT credits to encourage suppliers to provide information advice with smart meters, if there is evidence that such services significantly increase the energy savings associated with smart meters. This is a matter we could discuss with government once there are clear results from the trial.

If you are a supplier, will you consider taking up such an opportunity and to what extent?

N/A

6.9

Do you consider that there is potential for suppliers to provide ancillary services such as charging for recalibration?

What on-line or other services might suppliers provide?

There is potential for suppliers to provide ancillary services. However, it is not clear that these would improve the carbon savings associated with the VDUs or create a positive business case for suppliers.

6.10

The Government would welcome views on any potential problems for vulnerable customers and how these problems might be addressed?

We consider that a "free on request" policy for display devices will have negative distributional impacts. Those most likely to request the devices are likely to be in middle or upper income brackets, meaning that vulnerable customers would end up bearing some of the costs of this policy, without, in all likelihood, enjoying the benefits. If Government insists on requiring suppliers to provide display devices then it should allow suppliers to charge for them, (as in general if customers have to pay for a device, they will be more likely to use it) but consider requiring suppliers to provide devices free of charge to vulnerable customers.

The Government's proposals

6.15

Do you agree that no requirements beyond the safe installation of such devices should be applied to suppliers? Do you have any other views?

Ofgem has safety concerns with the proposal that customers should be allowed to, or required to fit clip on displays themselves. This could dislodge live cables from meters or switchgear which they are then unable to safely isolate themselves.

Requiring suppliers to install display devices will substantially increase the cost, particularly of the proposal that suppliers should provide a display on request. A bespoke visit to a customer's premise for this purpose could cost in the region of £50.

Under what circumstances might suppliers move towards the installation of a smart meter and means of displaying information as a way of meeting this requirement?

Suppliers are unlikely to provide smart meters as a means of complying with a broad obligation to provide information on real time energy use while there is uncertainty as to Government's policy on smart meter roll out, and particularly while there is a chance that Government will reverse metering competition. This obstacle to smart metering roll out will remain even if Government decides now to hold off from making a policy decision on smart meter roll out for several years.

For this reason, it would be helpful if Government could narrow down the policy options it is considering by the end of this year. In particular, we urge Government to rule out any reversal of metering competition so that the work needed to prepare for smart meter roll out can begin in earnest.

Providing real time displays on customer request for two years from as early as possible in 2008

6.18

What effect would the separate provision of display devices have on the Government's ambition of providing all homes and businesses with smart meters over the next ten years?

As set out in our responses to questions 6.5 and 6.15, there is a real risk that pursuing a 2-stage approach to delivering smart meters will increase the sunk cost in non-smart meters and reduce supplier's business case for smart meters.

How might suppliers make real time displays available to customers? Do suppliers have particular views on their provision?

N/A

What would be the range of costs (devices, provision etc) of providing displays to all customers (i.e. not just those customers requesting a device) on a short-term - eg 5-year – basis?

N/A

What additional carbon savings could be achieved by moving from the "on request" policy to a full universal roll out of display devices?

N/A

Small business and energy suppliers

6.19

Should small suppliers be afforded additional time to implement this policy?

Should this policy on display devices be applicable to small suppliers?

The policy should not be applicable to any suppliers. We urge Government to listen particularly carefully to the views of small suppliers on this issue, many of which are Green suppliers which have a strong commercial interest in providing their customers with the means to reduce carbon emissions.

6.21

Do you agree that business customers should be excluded from this proposal?

Yes, in that we do not consider that the roll-out of display devices should be mandated for *any* customer groups. We also believe that for business customers more interactive forms of information, such as on-line access, are likely to be most effective, and these require smart meters to be installed.

If you disagree, could you indicate which business customers might benefit from display devices, and in what way?

N/A

Draft statutory instrument

6.22

Do you have any views on the attached draft licence conditions for this policy, including the text in respect of the technical feasibility of display devices in tandem with meters?

Our comments on the legal drafting of the draft licence conditions are included in annex 2 to this response.

6.24

Do you agree that it would not be financially reasonable and proportionate in relation to the potential energy savings to roll out display devices to all domestic customers in the short-term?

We agree.

What would be the additional costs of a universal, short-term roll-out?

N/A

Chapter 7 – Smart metering for the business sector

Introductory section

7.7

What are your views on the segment of the market that we propose will be subject to these requirements?

We consider it important that the thresholds used to identify which customers fall into the business sector category are defined clearly, and in a way that allows suppliers to report compliance readily. If definitions are expressed in a way which is incompatible with the information readily available to suppliers, this will create significant difficulties for compliance monitoring and enforcement. We have a particular concern that the consumption of customers can vary from year to year and for this reason that the segmentation used for gas may be difficult to apply in practice. One approach would be to define the gas business customers on the basis of their consumption over the previous [2] years.

Should the smallest businesses be covered under the terms of a domestic smart meter roll out?

Yes, because the metering arrangements that suppliers have in place for the smallest business customers tend to be similar to those in place for domestic customers.

7.8

Does asset-stranding represent a significant commercial problem in the larger business market to which the Government proposes that smart meters be provided?

We note that suppliers have already started providing business customers with smart meters, indicating that even despite asset stranding costs they consider smart meters to be commercially rational for these customers.

Are interoperability arrangements necessary to underpin a roll-out of smart meters to this sector?

While we consider interoperability arrangements to be desirable, we also recognise that suppliers already seem to be progressing smart meter roll out despite the absence of formal interoperability arrangements. We believe this is partly because suppliers tend to have long term contracts with business customers and are making margins at this end of the market which warrant this type of capital expenditure, particularly if this increases their chances of retaining a customer.

In this climate we do not think there is a case for Government intervention on interoperability. We intend to continue being engaged with suppliers on this issue and will ensure that the appropriate parties fulfil their respective roles in terms of sorting out interoperability and the necessary changes to industry processes.

7.9

What are your views on the provision of such services?

N/A

7.10

Is five years an appropriate period in which to roll out smart meters in the business sector? If not, what might be an appropriate period?

What are the stranding and other drawbacks of this proposal and the 5-year timescale? Are these material?

Imposing a 5 year roll out mandate restricts the freedom of suppliers to roll out smart meters in the most cost effective manner and according to commercial incentives and customer demand. We are also concerned about the monitoring and compliance costs (to suppliers and Ofgem) that are associated with this proposed measure. Ofgem does not believe it is efficient to impose unnecessary costs on suppliers (and ultimately customers) in order to meet an arbitrary deadline for roll-out.

We note that the ESD does not require government to set a timeframe for roll out, even where the provision of smart meter is cost effective. Nor has any justification been given for a 5 year deadline other than that it may be technically possible. To the extent that some measure is required for ESD compliance, we suggest that government considers making this intervention less prescriptive, by for example, requiring suppliers to install smart meters to this segment of business customers when replacing or installing a new meter.

Another, less prescriptive approach, would be to require suppliers to provide [85%] of this customer segment with smart meters within 5 years, with an option for derogation on application to Ofgem. This at least will recognise that some sites will be hard to reach, and there may be other valid reasons for stalling the delivery of smart meters to some business customers.

7.11

What impacts will this policy have on gas and electricity settlement processes?

Will changes to the Balancing and Settlement Code and the Uniform Network Code be required?

What changes will be required, and over what timescale, to allow energy to be settled on the time of use data provided by the smart meter rather via a profile?

What changes, if any, would be required, and over what timescale, to ensure that the best use is made of smart meters in terms of peak load reduction and network management?

What measures should be put in place to ensure that customers or their agents can access data from smart meters?

Ofgem has already begun to engage with Industry on these matters. We are concerned about the lack of progress in resolving data issues, and have written to Elexon, Xoserve and National Grid to find out what they are doing to make sure the balancing and settlement system both improves as a result of smart metering and does not stand in the way of the industry achieving the full benefits of smart metering. Elexon in particular must be commended on work they have done to look at how their systems will be affected by smart meters, and what changes need to be made. Meter operators are also looking at these issues. We have found that uncertainty about the future of smart meter roll out is acting as a barrier to progress in this area. For this reason, we think it is a priority that Government reaches a conclusion on smart metering policy as soon as possible, so that this work can be taken forward.

Small energy suppliers

7.14

Should small suppliers be afforded additional time to implement this policy?

Our impression from talking to suppliers is that small suppliers are at the fore in terms of smart meter roll out. They may feel particularly concerned that this obligation may erode one of their commercial advantages. We urge Government to listen to the views of small suppliers and any problems they anticipate with meeting the 5 year timeline.

Draft statutory instrument

7.15

Do you have any views on the attached licence condition for this policy?

Our comments on the legal drafting of the draft licence conditions are included in annex 2 to this response.

Do you have any other views on these policies on the provision of smart meters for business?

N/A

Can the competitive supply market be relied upon to ensure that businesses are offered competitively priced smart meters?

Current activity suggests the competitive market is functioning well in terms of delivering smart meters to business customers. As noted above, it is in suppliers' interests to ensure they provide their business customers with competitively priced smart meters and good quality ancillary services. Otherwise they may not be successful in winning and retaining their customer base. This incentive will become stronger as more requirements are placed on businesses to manage their carbon emissions and as energy prices place more pressure on them to improve energy efficiency.

Chapter 10: The Government's vision for smart metering

Policy Options

10.9

What are your views on the options presented above and other alternatives that may exist, including how different options might deliver the most cost effective rollout scenarios?

Ofgem considers that the competitive market delivers the most efficient outcomes for consumers, and supports the use of market forces to bring smart meters to the domestic sector. In this context we welcome the commitment in the EWP to the competitive market and we commend Government on consulting on three relatively light touch interventions for domestic smart meters.

We recognise that a combination of factors have led to a logjam in the roll out of smart meters to domestic customers. We consider that if Government were to take no further action (Option 1), it is unlikely to be successful in removing the current uncertainty which is holding up investment. Further intervention is required – not because there is an inherent problem with market-led roll out, but because, ironically, Government intervention appears necessary to create political certainty. Rather than characterising Option 1 as a “do nothing” approach, it could instead entail government making a clear statement that it wanted to keep the current competitive metering market arrangements and charging Ofgem with responsibility for working with suppliers to put in place the arrangements necessary for smart metering. This may need to be reflected in a new licence condition on suppliers to work with Ofgem on these matters.

Of the other two intervention options being consulted upon, we prefer the new and replacement option (Option 2). This ‘lighter touch’ intervention could use existing regulatory structures, and would guarantee the start of (domestic) smart meter delivery.

It is our opinion that Option 2 has the following benefits:

- is compatible with starting smart meter roll out in the near future;
- will deliver a minimum rate of smart meter installation after which it is likely that a tipping point will be achieved, where it makes commercial sense for the industry to move more rapidly to smart meters;
- relies upon competition to constrain the cost of smart metering roll out;
- will be better at protecting customer interests than regulation;
- will minimise the stranded costs that arise through roll out. While suppliers may choose to install smart meters at a faster rate, they are only likely to do so where the benefits outweigh the stranded costs they incur;
- allows flexibility over the end-date for roll-out which will maximise the scope for ‘learning by doing’.

Policy Options in Detail

The consultation document raised the following questions in relation to each of the three proposed policy approaches. We have combined our answers for each of the policy options under the common question heading.

10.15, 10.20, 10.24

What would be the impact of running two infrastructures in parallel supporting smart and non-smart meters, including the resulting impact on consumers?

The length of time which suppliers choose to run two parallel systems will be a commercial decision for the suppliers to take and in practice it is unlikely to be affected by the policy decision that Government takes. For example, even if Government does not set a 10 year deadline for smart meter roll out, if it is more economic for suppliers to speed up smart meter roll out to move away from using old systems, suppliers will face the appropriate market signals to do this.

Ofgem notes that whichever roll out strategy is used, running parallel systems for some duration is unavoidable. In the regional franchise model for example, suppliers are likely to put those customers with a smart meter onto new systems while those with non-smart meters will remain on old systems for some time to come.

What, if anything, would prevent a critical mass of smart meters being reached, creating a tipping point where it would become cost effective to accelerate smart meter installation?

As set out in our responses to 6.5, 6.15 and 10.9, for a tipping point to be reached it is crucial for suppliers to be provided with adequate certainty to plan their investment in smart meters optimally. If political uncertainty persists there will continue to be delays to investment in smart meters by suppliers.

We understand that some suppliers doubt whether a tipping point will be reached with the current market structure, because they consider that the benefits for them of having smart meters in place are limited without radical changes to industry systems. This only supports our view that it is in industry's interest to propose whatever system changes they believe are required to allow maximum supplier benefits from smart meters, and we encourage them to do so.

The speed with which suppliers would roll out smart meters under Options 1 and 2 would be determined by the business case for roll out. As technology continues to evolve and the prices of smart meters continue come down, the business case is likely to change. It is likely that progress towards a tipping point will also be driven by the behaviour of competitor suppliers – if one supplier decides to go for accelerated roll out, the business case for others may also increase as smart meters will become part of their strategy for retaining customers.

What options exist for the installations of meters in this scenario, for example on a new and replacement basis, on a geographic basis or through a different replacement approach?

We want to see the roll out of smart meters happen in a cost-effective way. In a competitive market, suppliers have an incentive to keep costs to a minimum to ensure their retail prices remain competitive. We consider that policy interventions should be targeted to ensure that these incentives remain in place.

We consider that it is for suppliers to come to their own arrangements as to how they meet the requirements imposed by Government. If suppliers deem it economic to roll out smart meters on some type of geographic basis, for example to take advantage of economies of scale associated with communications infrastructure, then there is nothing preventing these arrangements being agreed

through commercial contracts. These decisions should be for the market to take, rather than to be mandated by Government.

What would be the likely range of asset stranding values in this scenario?

The asset stranding created by Government policy on smart metering could range from zero to potentially hundreds of millions of pounds, depending on the policy adopted.

As set out in our response to question 10.9, we consider that policy options 1 and 2 being considered by Government do not strand assets. Under these policy options, suppliers may decide to roll out faster than required by Government. However, this will be a commercial decision based on an assessment that the benefits of smart meters outweigh the stranding liability that suppliers face.

Alternatively if smart meter roll out is subject to a Government imposed timeframe (Option 3) then the policy will create stranded assets, the exact quantum of which will depend, upon other things, on the speed of roll out. With this policy there is likely to be pressure on Government from suppliers and meter owners (where they have not transferred the stranding risk to suppliers) to address the stranding inherent in the policy. While Government may be persuaded there is a case for a statutory stranding mechanism, any mechanism is likely to be complex and fraught with difficulties, not least in terms of calculating the potential stranded asset values. This is one reason we do not support the policy of a Government imposed timeframe for smart meter roll out. As discussed further below, if Government decides to provide some statutory mechanism on stranding one important matter will be what proportion of stranding should be borne by shareholders (as opposed to consumers) and what means are used to ensure that shareholders carry these costs.

With regard to the range of asset stranding values, Government will note that Ofgem is currently conducting a Competition Act investigation into National Grid Metering Service Agreements. This may impact on the level of suppliers' potential exposure to stranding costs if they are required to undertake an accelerated replacement of current meter technology.

Would a dual-fuel approach be taken for meter installations?

Under the current market structure, it is likely that less than half of the country's households would require two separate visits to install electricity and gas smart meters⁴. As such it is possible that whatever the policy option applied, there would be a considerable degree of dual fuel roll out, with the cost savings that this brings both in terms of installation and in terms of allowing both meters to share a modem.

It is further possible that suppliers may reach commercial arrangements with each other's meter operators to facilitate dual fuel roll out to some of their single fuel customers if the savings available warrant this additional complexity. Ofgem is happy to work with industry to resolve any issues suppliers foresee, particularly in relation to gas meters piggy backing on smart electricity meters. However, discussions on these matters are not likely while there is policy uncertainty around smart meter roll out.

⁴ Approximately 33 percent of customers currently have dual fuel deals and 20% percent of customers have electricity supply only. (Data from OFGEM's Domestic Retail market Report, June 2007).

We are aware that dual fuel roll out is argued to be a key benefit of the regional franchise model. We urge Government to consider the quantum of the potential cost savings and to weigh them carefully against the costs associated with the loss of efficiency incentives that exist under the current competitive model.

Which customer groups carry a high cost-to-serve and may present an early target for smart meter roll out? What proportion of customers does this represent?

We understand that there is already likely to be a strong business case for smart meter roll out to prepayment customers. Progress should be made in addressing the needs of this group (many of which are vulnerable customers) as soon as possible.

What percentage of meters would be changed over ten years under this scenario? Please provide supporting evidence.

While it is impossible to know with certainty how many smart meters will be installed under the new and replacement approach, we consider there are good reasons to expect that a tipping point will be reached sooner rather than later once the Government makes a clear and final policy decision, and that this will see a significant majority of customers with a smart meters within 10 years.

A ten year mandate (Option 3) may deliver smart meters slightly faster, but this option carries its own risks and drawbacks. In particular, it will entail stranding where there are insufficient offsetting supplier benefits and some of these costs may be passed through to customers. An accelerated roll out by all suppliers at the same time may place strain on the industry. Similarly, with Government forcing the pace of roll out means there will be little commercial advantage to those suppliers which move fastest, or which are the first to adopt new technology. Time to experiment and learn from experience before making investment decisions, or changes to the industry will be constrained and poor and costly decisions may result.

Overall, we are not convinced that these risks can be justified by a slightly faster delivery of smart meters.

Why has investment in smart metering not occurred to date and what else could be done to facilitate investment?

We consider that this is due to political uncertainty blocking delivery - see our responses to 6.5, 6.15 and 10.9.

How would a smart meter communications infrastructure be deployed in this scenario?

Communications is one of the most rapidly developing areas in smart metering systems, which means there is ongoing and increasing scope for suppliers to take advantage of new and improved technologies as they become available. We would be very concerned if a situation were to arise where suppliers jointly procure communications services because of the roll out model in place, rather than each exploring the available options and coming to a commercial decision about which approach is appropriate.

We therefore favour policy intervention that involves minimum intervention, ensures flexibility, and maintains incentives for suppliers to innovate, rather than

designing a policy solution around technology which may soon become out of date.

We do not consider that a model akin to the ERA's regional franchise model is the only way of exploiting economies of scale within communications infrastructure. Under the new and replacement approach, there remains scope for commercial agreements to be struck between suppliers (or between their metering agents) to make joint use of communications infrastructure.

What other risks or benefits would this option present?

A key risk is that Government looks for a policy which tries to address all of the issues associated with smart meter roll out and that through this kills off the benefits which can come from more reliance on market delivery.

Benefits of smart metering

10.25

What are your views on the benefits of smart metering with regard to the specific areas detailed above?

Ofgem is convinced that smart meters have significant potential to bring customer, supplier, network and environmental benefits. We note, however, that the quantum of benefits have yet to be proven, particularly as concerns the energy and carbon savings which smart meters will deliver. This is a key reason Government needs to keep its intervention in this area to a minimum. In contrast, there is more certainty around the costs of new technology and of smart meter roll out.

Smart meter communications infrastructure

10.29

What is the cost-effectiveness of the different communication options under different scenarios? Are there other suitable approaches?

See our response to 10.15 on smart meter communications infrastructure deployment.

Should the development of a suitable communications infrastructure be left to the market, or is Government intervention of some form required?

Does the communications infrastructure, or particular technologies, represent a natural monopoly?

Ofgem recognises that determining the most desirable communications option(s) to support smart meters is a complex and challenging issue for industry. However as set out in our response to question 10.15 we do not consider that this is a sufficient reason for Government to "fix" the type of communications infrastructure to be implemented, or indeed to define the market model with a view to allowing industry to take advantage of any particular communications technology.

Instead we recommend Government leaves suppliers and their agents to determine the most efficient form of communication(s) to use with smart metering. Communications are not a natural monopoly (there are different

infrastructures covering the same area) and imposing a communications option will stifle innovation and investment in communications and remove any incentive for suppliers to find the most cost-effective solution.

Smart meter roll out will require suppliers to agree on data protocols. We are keen that work on this and other aspects related to communications moves forward as soon as possible.

Metering technology and costs

10.32

What is the likely range of costs of a smart meter, having regards to different levels of functionality?

N/A

Microgeneration

10.33

How could smart meters facilitate the uptake of microgeneration?

If smart meters have an export facility, they will remove the need for microgenerators to have a separate export meter (which can cost up to £200). This may help the case for microgeneration, although we note that this alone may not be sufficient to make microgeneration economically viable.

Asset stranding

10.35

What are the potential implications of asset stranding of existing meters, including legacy metering contracts, as well as the costs and environmental impacts relating to the disposal of large numbers of unwanted meters? (Responses should be made with reference to the policy options presented where possible.)

How should the costs of existing or historical asset investments be determined and recovered if the Government takes actions which would result in the stranding of those investments? What regulatory oversight of the recovery of such costs would be needed? Who would bear the costs of stranding?

If Government decides to pursue Option 3, there may be pressure for some form of stranding cost recovery mechanism. Provided Government is convinced there is a case for a statutory stranding mechanism, we would need to consider the details of such a scheme further with Government but, as noted above, we suspect that designing a statutory mechanism will be complex and fraught with difficulty. Whilst we support actions and policies that will remove barriers to replacing existing meters and promote the use of new metering technology, we would rather Government adopts a policy option which does not oblige suppliers to replace meters before they have reached the end of their expected life.

Even with a Government imposed timeframe for smart meter delivery, there are ways in which suppliers and meter owners can manage the stranding costs they bear in relation to current technology (for example, they can use modular

technology or prioritise replacement of meters with lower stranding charges). They can also manage the impact that any exposure to stranding costs has on their business by targeting replacement to customers where the business case is strongest. By contrast, consumers have no way to manage stranding costs that are passed to them by suppliers through energy bills. We therefore think that it is important that the outcome of any mechanism is that any stranded costs are not fully passed through to consumer prices. Shareholders should be exposed to the majority of these costs, which is an approach that Ofgem took with regard to token prepayment meters⁵.

IT development costs

10.36

What is the likely scope of the IT infrastructure and investment and the timescale over which this would fall? (This should reflect requirements both within and between companies required to support a smart meter roll out and the cost implications to energy suppliers and consumers.)

We fully anticipate that the introduction of smart meters will lead to significant change to the current data flows which support industry processes such as billing, change of supplier and settlement. We expect that some of these changes will lead to a requirement for new supplier systems.

At this stage it is unclear exactly which changes are required before smart meter roll out commences (and which are therefore on the critical path) and which can be introduced later in order to improve the benefits which suppliers and customers can gain from smart meters. We are keen to work with industry on these matters. In principle, we believe it should be possible to commence smart meter roll out with minimal changes to existing industry processes. In this way, the country can begin to reap the green benefits of smart meters as soon as possible, while leaving time for industry to work on designing the longer term arrangements.

The need for improvements to data flows and quality should not be confused with changing the industry model. We think there is room to improve data flows while retaining metering competition and the benefits it brings. A competitive model will keep incentives on suppliers to make technological choices about meters in a way that will best satisfy their need to differentiate and compete effectively in the supply market. The risks for selecting the right technology should remain with those who have the tools to manage it.

Impact on meter installer, meter reading and energy management industries

10.38

What are your views on the effects on meter installers resulting from different meter installation approaches such as under new and replacement terms or a simple mandate to replace within 10 years?

N/A

⁵ Ofgem. Early replacement of electricity PPMs and removal of electricity metering obligations: Proposed licence amendments. 20 February 2007. Ref: 29/07

What are your views on the effects on meter-reading organisations of the different policy options?

N/A

What opportunities exist for the growth of energy management companies, and what measures should be put in place to ensure that customers or energy management companies acting as their agents can access data from smart meters?

It seems possible that energy management companies would more easily develop if a consumer were to give them permission to access their smart meter data. However, before this question can be answered, the issue of who owns the data (and how the term 'data' is defined) will first need to be clarified. We consider this to be a detailed issue, that would need further thought once the key issues surrounding option choices have been decided.

Social and personal information issues

10.44

What are your views about the social impacts of the added functions of smart meters, for instance, the ability of suppliers to switch meters to pre-payment or disconnect supply more easily? Are any additional safeguards needed?

Given existing data protection rules, and safeguards applied by energy suppliers, are any additional safeguards needed in respect of how the data is used or the way in which it is transmitted?

What are the potential beneficial and negative impacts on fuel poor and other low-income or vulnerable customers?

Some stakeholders have expressed concerns that customers, particularly the vulnerable, may be made worse off by the smart-enabled ability of suppliers to cut off supply remotely or change how customers pay (from credit to prepayment) without their consent. We believe, as your document states, that the gas and electricity supply licences will provide customer protection, regardless of technology advances. Our recent review of our supply licences particularly considered the impact on vulnerable customers⁶. The licences and the Gas and Electricity Acts set out the procedures to be followed when a customer falls into debt, which must be followed regardless of suppliers potentially having the capability to remotely switch customers between prepayment and credit, or disconnect. We therefore do not consider that additional safe guards are required.

However we are concerned about the potential unintended consequences of these policies for vulnerable and fuel poor customers.

Firstly there is significant potential for costs associated with these policies to be passed through to customers, including the vulnerable and fuel poor. As set out in our responses to questions 6.5, 6.10 and 6.15, we consider that there will be significant costs arising from wasted investment by suppliers in stand alone display devices, particularly under a "free, on request" delivery mechanism, and these costs will be passed through to customers. We consider that suppliers

⁶ Reference supply licence final proposals

should be allowed to charge for these devices, with the exception of vulnerable and fuel poor customers.

Also, as set out in response to question 10.35, if the Government were to place a ten year obligation on suppliers to roll out smart meters, stranding and any inefficiency in roll out costs will ultimately feed through to all customers, including the vulnerable and fuel poor.

We are also concerned that a situation could arise (or indeed already exist) where suppliers may hold back from rolling out smart meters to PPM customers even though there is a business case for doing so. Current prepayment metering and the systems to support the infrastructure are expensive, and as a result customers forced to use prepayment very often cannot take advantage of cheaper tariffs. Smart meters would simplify many of the existing prepayment processes, and we consider that there is already a business case to roll out smart meters to a significant number of these customers. We therefore favour a roll-out option that does not act as a barrier to the priority delivery of smart meters to sections of the customer market for which the economic case for rollout is strongest, including vulnerable and fuel poor customers. We have concerns that Option 3 could delay the roll out of smart meters in these cases.

In addition to these particular concerns, we would also stress that the roll out model adopted by Government will determine what competitive forces are on suppliers to constrain costs. Under an administered approach such as the regional franchise model, there is not sufficient pressure on suppliers to seek out least cost solutions. We believe that retaining competitive constraints is a fundamental requirement to prevent the vulnerable and fuel poor, and indeed all customers, from facing excessive costs.

Annex 2:

Comments on Statutory Instrument

This annex provides more detailed drafting comments to the proposed Statutory Instruments. Words deleted or replaced are highlighted in red. Please note that reasons for the changes, and additional questions or comments, are added as footnotes to the text.

ELECTRICITY SUPPLY LICENCE

SCHEDULE 1

Condition W (Billing)

W.1 This condition applies on and from [date].

W.2. Subject to paragraph 5, the licensee must⁷ provide the Information⁸ contained in paragraph 3 on every Bill or statement of account sent to a Domestic Customer. The information **must** be presented in a form which is clear and easy to understand.

W.3 The **I**nformation provided for in paragraph 2 is a comparison of the Domestic Customer's electricity consumption for the period covered by the Bill or statement of account, with the Domestic Customer's electricity consumption for the corresponding period in the previous year ("corresponding period").

W.4 The licensee **will** make it clear on the Bill or the statement of account where an estimate of the Domestic Consumer's electricity consumption has been used in producing the comparison.

W.5 The requirement in paragraph 2 **will** not apply unless the licensee has been contracted to supply electricity to the same Domestic Customer at the same premises throughout the period:
(a) commencing with the start of the corresponding period; and
(b) ending with the end of the period to which the Bill or statement of account relates.

SCHEDULE 2

Licence Condition X (Real Time Displays)

X.1 This condition applies on and from [date].

X.2 In this condition:

"Display Device"⁹ means a device that is capable of providing¹⁰ to a Customer, information about the amount of that Customer's electricity consumption and the cost of such consumption at the time at which such consumption occurs.

X.3 Subject to paragraph 4, where the licensee receives a request for a Display Device from one of its Domestic Customers before [date] 2010, it must provide that Domestic Customer with a Display Device, free of charge and as soon as reasonably practicable after receipt of the request.

X.4 Where the licensee has already complied with the requirement in paragraph 3 in relation to a request from one of its Domestic Customers, it will not be required to do so again in respect of a

⁷ "must" not "shall" is used in the supply licence

⁸ "Information" is a defined term in the supply licence but arguably is wide enough and non exhaustive to cover the information envisaged here; see condition 1.3.

⁹ Definition of Display Device should be inserted into SLC 1

¹⁰ The drafting may need to be tidied up to clarify whether the supplier has to make special provisions for visually impaired customers. It might be better to say that the device should be capable of providing a **visual** display to a Customer including information about...

subsequent request for a Display Device from the same Domestic Customer in relation to the same Domestic Premises.

X.5 Where the licensee installs or arranges for the installation of an Electricity Meter in respect of a Domestic Premises it **must** provide for use with that Electricity Meter and free of charge, a Display Device.

X.6 The licensee **will** not be required to provide a Display Device pursuant to an obligation in paragraph 3 or 5, where:

- (a) any modification of the electrical arrangements within the premise **would be** required **to enable the device to function**; or
- (b) where the position of the Electricity Meter in relation to the Domestic Premises, means it is not technically possible for the Display Device to function without additional measures.

What if the device supplied pursuant to X.3 is faulty? Is the customer entitled to a new display device notwithstanding subsections 4 and 5?

SCHEDULE 3

Condition Y (Smart Meters for Business)

Y.1 In this condition:

“Relevant¹¹ Non-Domestic Customer” means a Non-Domestic Customer [metered for its electricity consumption within meter profile class 5, 6, 7 or 8].

“Smart Meter¹²” means an Electricity Meter which, either on its own or with an ancillary device—

(a) stores measured electricity consumption data for multiple time periods; and

(b) allows¹³ remote access to this data by the licensee and either the Customer supplied by that meter or the Customer's nominated agent¹⁴.

Y.2 On or from [date], where a licensee installs or arranges the installation of an Electricity Meter in respect of a Relevant Non-Domestic Customer, the meter that the licensee **must** use **will** be a Smart Meter.

Y.3 As from [date] 2012, the licensee **must** not supply any electricity to a Non-Domestic Customer other than through a Smart Meter.

SCHEDULE 4

Amendment to Licence Condition 31

1. For Condition 31.1 (information about Consumer Council) substitute the following text:

“**31.1** The licensee must inform each of its Domestic Customers:

(a) that the Consumer Council can assist in:

(i) resolving complaints that the licensee has not resolved to the Domestic Customer's satisfaction; and

(ii) the provision of information relating to the efficient use of electricity; and

(b) how to contact the Consumer Council,

by providing that information on or with each Bill or statement of account sent to each Domestic Customer in relation to Charges for the Supply of Electricity or annually if the licensee has not sent such a Bill or statement of account to him.”

¹¹ No such definition in SLC 1, simply distinguish domestic from non-domestic. Assume need to distinguish again from small businesses which fall into meter profile class 3 & 4. Would prefer to remove “Relevant”.

¹² Definition of smart meter should be incorporated into SLC 1

¹³ Would recommend “facilitates” rather than “allows”.

¹⁴ Drafting here is unclear. Is the purpose to describe the **service** that the supplier must provide to the customer or the **functionality of a smart meter**? As drafted, this condition could allow a supplier to install a smart meter without having to link this up to the communications network. Is this the intention?

GAS SUPPLY LICENCE

SCHEDULE 1

Licence Condition X (Billing)

X.1 This condition applies on and from [date].

X.2 Subject to paragraph 5, the licensee **must** provide the Information contained in paragraph 3 on every Bill or statement of account sent to a Domestic Customer. The information **must** be presented in a form which is clear and easy to understand.

X.3 The information provided for in paragraph 2 is a comparison of the Domestic Customer's gas consumption for the period covered by the Bill or statement of account, with the Domestic Customer's gas consumption for the corresponding period in the previous year ("corresponding period").

X.4 The licensee **must** make it clear on the Bill or the statement of account where an estimate of the Domestic Consumer's gas consumption has been used in producing the comparison.

X.5 The requirement in paragraph 2 **will** not apply unless the licensee has been contracted to supply gas to the same Domestic Customer at the same premises throughout the period:

- (a) commencing with the start of the corresponding period; and
- (b) ending with the end of the period to which the Bill or statement of account relates.

SCHEDULE 2

Licence Condition Y (Smart Meters for Business)

Y.1 In this condition:

"Non-Domestic Customer"¹⁵ means a Non-Domestic Customer with an annual gas consumption of less than 2,196,000 kWh and more than 73,200 kWh.

"Smart Meter" means a Gas Meter which, either on its own or with an ancillary device¹⁶—

- (a) stores measured gas consumption data for multiple time periods; and
- (b) **facilitates** remote access to this data by the licensee and either the Customer supplied by that meter or the Customer's nominated agent.

Y.2 On or from [date], where a licensee installs or arranges the installation of a Gas Meter in respect of a Non-Domestic Customer, the meter that the licensee **must** use **will** be a Smart Meter.

Y.3 As from [date] 2012, the licensee **must** not supply any gas to a Non-Domestic Customer other than through a Smart Meter.

SCHEDULE 3

Amendment to Licence Condition 31

1. For Condition 31.1 (information about Consumer Council) substitute the following text:

"31.1 The licensee must inform each of its Domestic Customers:

- (a) that the Consumer Council can assist in:
 - (i) resolving complaints that the licensee has not resolved to the Domestic Customer's satisfaction; and
 - (ii) the provision of information relating to the efficient use of gas; and
 - (b) how to contact the Consumer Council,
- by providing that information on or with each Bill or statement of account sent to each Domestic Customer in relation to Charges for the Supply of Gas or annually if the licensee has not sent such a Bill or statement of account to him."

¹⁵ We would prefer to remove "Relevant Non Domestic Customer". It is understood that this provision applies to a subset of non domestic customers.

¹⁶ Please see earlier points regarding Smart Meters and ancillary device.