

**Evidence gathering session on non
domestic issues
23 April 2010**

**N.B. All content is as produced by the Stakeholders and
does not represent a preferred option or view by Ofgem
/ DECC.**

Table of Contents

GENERAL QUESTIONS	4
Question 1: If full smart meter functionality and dcc are not used, how is inter-operability going be secured:.....	4
• In the non domestic electricity sector?	4
• In the non domestic gas sector?	4
Question 2: What are the implications of non-domestic consumers contracting for smart/AMR metering services directly with service providers?	5
Meter Functionality	6
Question 3: In what respect, if any, does the functionality of advanced metering offer benefits to consumers that are not available from smart meters (based on DECC’s high level functional requirement) for:	6
(a) typical advanced electricity meters; and	6
(b) typical advanced gas meters? Could such functions be provided to a smart meter platform? ...	6
Question 4: Would AMR providers use domestic specification smart meters when these became available in volume? If not, why not?	6
Question 5: To what extent can AMR functionality facilitate the development of Smart Grids and, are there any potential limitations?	6
Question 6: What proportion of SME customers could be expected to benefit from pre-pay electricity supply contracts that would require a metering system that permitted remote interruption of supply?	7
Question 7: What level of commercial interoperability exists in:	8
(a) the electricity AMR market; and.....	8
(b) the gas AMR market today that ensures a new supplier can access the existing AMR system? ..	8
Question 8: To what extent can experience with interoperability issues in the larger non-domestic sector usefully inform thinking in relation to the SME sector?	8
Central Communications Provider	8
Question 9: Is there any evidence which suggests that competition would be impacted by the use of DCC in the SME sector?	8
Question 10: What level of data granularity and frequency of data is required to facilitate the delivery of benefits for SME customers as envisaged in the DECC SME impact assessment? To what extent do AMR providers offer “real time” information on customers’ energy usage?	8
Question 11: With regard to the data referred to in the previous question , is it extracted from the meter locally and communicated to the consumer directly (e.g. through a display device) or	

downloaded from the meter via the Wide Area Network (WAN) and made available to the consumer via the internet or by other means of communication? Please differentiate between electricity and gas as necessary. 8

Question 12: What would be the implications for Smart Grids if non-domestic customers with smart meters were treated differently with respect to the application of DCC? 9

Question 13: Are security and data privacy requirements different for non-domestic meters and if, in what way and what is the reason for this? 9

GENERAL QUESTIONS

Question 1: If full smart meter functionality and dcc are not used, how is inter-operability going to be secured:

- *In the non domestic electricity sector?*
- *In the non domestic gas sector?*

Although there was recognition that inter-operability was a "struggle" in the AMR world, a number of stakeholders argued that this was not likely to be an issue in the smart world, even without a mandate for use of DCC for SMEs, because:

- Due to the volumes, smart meters will be the cheapest option for all single phase whole current metering. However, it was questioned whether it would make economic sense for three-phase meters to have contactors to permit remote disablement/enablement as these were quite expensive (although they were already being fitted in some cases).
- It would make good business sense for suppliers to use a standard means to get to the meter – using different means of communications for domestic and non domestic consumers would drive extra costs.
- Technical interoperability is a lower risk than commercial interoperability currently.
- Customer chooses on price and quality of service (not technology).
- Important to recognise value added services enabled by greater data granularity in terms of use of data for energy management.

With regard to use of DCC specifically, the following comments were made:

- This was not a choice between using DCC or a comms provider from the existing market – there was benefit in having both as options. DCC should be challenged on value for money by alternatives.
- DCC should not limit scope for innovation – it should be an enabler for more innovation.
- It needs to be recognised that common functions done centrally can make economic sense -
- the gas market suffers fewer exceptions and problems precisely because more is centralised in xoserve. However, others noted that dealing with decentralised arrangement could be a source of competitive advantage to suppliers.

- It was stressed that it was important to collect data from the meter once only and to ensure it was used for three purposes (billing, settlement, and consumer energy management) without incurring additional comms costs.
- It was expected that DCC will drive a lot of standardisation and will make it easier to change supplier.
- Use of DCC relies on its being cheaper than alternatives.

It was noted that inter-operability was less of a problem in the non-domestic market because the value of the energy contracts justified changing some kit if this was necessary - a totally different position to the domestic market. Both suppliers and customers, for different reasons, did not want meter points treated differently for no good reason. From the suppliers' point of view this drove more costs. For customers, this meant that it was not possible to have a common view across the customer portfolio.

It was noted that if meter registration was transferred to DCC and existing registration providers were left with a rump of dumb meters, unit costs would be much higher because many costs were fixed. This would also apply to other activities that may be divided between the existing central bodies and DCC.

It was noted that the iGT register was already very expensive due to the low volume of meters – it was simply too small.

Some concern was raised about the scenario where a customer is not happy with its provider or supplier using DCC – where else could they then turn to if it has a monopoly?

Question 2: What are the implications of non-domestic consumers contracting for smart/AMR metering services directly with service providers?

It was noted that this was a source of inter-operability issues. The incoming supplier may not know that the customer has appointed an AMR service provider and may appoint another agent as data collector or may not have a relationship with the AMR service provider (or even want to have one). This can lead to agents being de-appointed, appointed and then de-appointed again or the new supplier withdrawing.

It was suggested that it would be very helpful to have the presence of a consumer appointed AMR service provider shown on the meter point register together with their identify and the expiry date of the contract. Other disagreed and said that this problem was going to be solved via the proposed ESTA sponsored ASP hub – there was a tender out now for this.

Another stakeholder noted that the main drive for appointing an AMR service provider was the Carbon Reduction Commitment.

There was a lack of transparency in supplier metering prices so that it was not possible to see what would be saved if a consumer appointed his own AMR service provider, replacing a supplier appointed data collector. It was noted that there are cases where

the supplier appoints a data collector and the consumer has an AMR service provider as well to present data in a way that will help manage energy consumption.

Customers would have to be convinced that running separate solutions would be cost effective.

Currently, IGT solution is very expensive compared to Xoserve.

Loss of larger customers could undermine AMR provider business cases.

Meter Functionality

Question 3: In what respect, if any, does the functionality of advanced metering offer benefits to consumers that are not available from smart meters (based on DECC's high level functional requirement) for:

(a) typical advanced electricity meters; and

(b) typical advanced gas meters? Could such functions be provided to a smart meter platform?

There was a strong consensus that AMR functionality is sub-set of smart functionality. No one suggested any functionality where AMR was superior.

Data granularity was important for value added services.

Question 4: Would AMR providers use domestic specification smart meters when these became available in volume? If not, why not?

Yes, definitely for small SME consumers. There was no difference in the metering requirement and smart meters would be the cheapest option.

Question 5: To what extent can AMR functionality facilitate the development of Smart Grids and, are there any potential limitations?

Networks suggested that it was very important to have smart functionality for SMEs because they were important loads on the network and because they would have a higher propensity to participate in load control than domestic consumers. It was noted that there were three parts to smart grids:

- first, use of data for operational planning for which a month lag on having data would be fine
- second, alerts concerning loss of supply so that the network would know the position before the consumer rang to complain
- third, active network management, needed as EVs and heat pump load grows for which some data would be needed at 1 to 5 minute intervals.

This might not be needed for 20 years – it all depended on how fast transport was decarbonised

Network operators would prefer as many sites as possible to use DCC so that they can limit their interface to communications providers. They also need to know what the latency is. Networks accepted that data might only be needed from a sample of meters – that depended on the development of predictive models. Network operators would prefer all meters to have the functionality to support future smart grids, with no “blind spots” i.e. meters that were invisible or slower to respond.

Networks suggested that, in the longer term, common meter data retrieval would become increasingly necessary – for example if universal communication of alarms to network operators were required.

With respect to gas, it was noted that the main issue was likely to be greater use of bio gas producing much greater CV variation across the network and thus there will be pressure to have meters translate gas volume into energy locally based on more dynamic CV data, held on the meter and updated from local sources.

Question 6: What proportion of SME customers could be expected to benefit from pre-pay electricity supply contracts that would require a metering system that permitted remote interruption of supply?

Some suppliers made strong assertions on the need for PAYG in the SME market – it was a valuable option for consumers and would permit suppliers to offer supply to businesses with low credit ratings.

Customers were concerned that they could be forced into this with no option to be billed on credit, damaging their cash flow.

There was a warning that contactors would be in the meter of those on a credit tariff and could be operated from time to time by mistake, depriving them of electricity supply.

There was general agreement on the need for strong governance around use of the contactor to disable supply remotely as the operator would not be able to see the nature of the premises. (i.e the situation of someone in a call centre pressing the “red button” should be avoided)

It was pointed out again that the provision of three-phase meters by contactors should not be mandatory due to the high cost. However, no indication of the level of these costs was provided.

It was also indicated that having a contactor for SME meters would mean that it was possible sometimes to disconnect a few and preserve supply to the many. At present a whole feeder may have to be taken out in the event load shedding was required.

It was pointed out that the SI governing the domestic use of PAYG, and in particular the 3 hours standard for a site visit to restore supply if needed, did not apply in the SME sector. This needs to be addressed.

Question 7: What level of commercial interoperability exists in:

(a) the electricity AMR market; and

(b) the gas AMR market today that ensures a new supplier can access the existing AMR system?

See comments on Question 1

Question 8: To what extent can experience with interoperability issues in the larger non-domestic sector usefully inform thinking in relation to the SME sector?

See comments on Question 1

Central Communications Provider

Question 9: Is there any evidence which suggests that competition would be impacted by the use of DCC in the SME sector?

See answer to Q1.

Question 10: What level of data granularity and frequency of data is required to facilitate the delivery of benefits for SME customers as envisaged in the DECC SME impact assessment? To what extent do AMR providers offer “real time” information on customers’ energy usage?

One download per day of HH or H data is the norm but more people now want more granularity and greater frequency. The CRC was the main driver – consumers are discovering the value of the information.

For close to real time display, it makes more sense to extract data locally because such granularity is not needed for billing or settlement. However, sometimes quite granular data was transmitted because once the comms link was set up it was cheap to use.

Some suppliers already provide near real time data to SME consumers.

Customers noted that where HH and NHH sites exist within a group, they want all data reported on a HH basis for comparability. Also they do not want to end up paying for real time comms for the benefit of smart grids. Network operators must pay for this if it drove benefits, not the consumer.

Value added services are enabled through greater data granularity (e.g. the ability to spot inefficient or malfunctioning appliances).

Question 11: With regard to the data referred to in the previous question, is it extracted from the meter locally and communicated to the consumer directly (e.g. through a display device) or downloaded

from the meter via the Wide Area Network (WAN) and made available to the consumer via the internet or by other means of communication? Please differentiate between electricity and gas as necessary.

See answer to Q 10

Question 12: What would be the implications for Smart Grids if non-domestic customers with smart meters were treated differently with respect to the application of DCC?

See answer to Q 5

Question 13: Are security and data privacy requirements different for non-domestic meters and if, in what way and what is the reason for this?

Security is a common concern as is privacy but the origin of the concern in the SME sector is commercial rather than personal – energy consumption data is especially sensitive. It was also suggested that the Data Protection Act did not apply except to sole traders; DPA only applies to individuals' data.

Secure access control to meters is essential. But there were different views on how this will work.

It was noted that the supplier hub principle, and the idea of supplier giving his agent the keys to the meter, leads to all being cancelled on change of supplier. This was not a perfect system but it did work. If a consumer has appointed their own AMR service provider, how would this work in context of DCC? Service providers, who were not suppliers, would need to have some rights.

The fact that a new supplier can add AMR kit to a meter (retrofit) and the previous provider's kit is still in place and could be active is a potential security risk. This would be solved by the common DCC conduit.

Business as usual problems such as proving ID over the phone or not having the registered representative of a business available to speak to the supplier were also discussed.