This response is submitted by the Chartered Institution of Building Services Engineers (CIBSE), the learned and professional body for building services engineering in the UK.

About CIBSE

CIBSE is the learned and professional body for building services engineers, with a global membership of almost 20,000. The Institution exists to 'support the Science, Art and Practice of building services engineering, by providing our members and the public with first class information and education services and promoting the spirit of fellowship which guides our work.'

CIBSE is the standard setter and authority on building services engineering in the UK. It publishes the CIBSE Guide, Codes and other guidance material which are internationally recognised as authoritative, and sets the criteria for best practice in the profession.

Buildings account for almost 50% of carbon emissions. Whilst building services systems which heat, cool, ventilate and power everything within the building are responsible for the bulk of these emissions, innovative services design and operation can dramatically improve their energy efficiency. Our members continue to design and create the most environmentally friendly systems in many major projects across the globe.

Whilst many building services engineers design energy using systems for buildings, other CIBSE Members have a professional interest in the operation of building services. Facilities managers are responsible for day to day running of buildings, and seek ways to improve their energy performance and reduce waste. Many CIBSE members are accredited energy assessors, and a number have contributed to the preparation of this response. In addition, a number of other CIBSE members have contributed to the preparation of the following comments on the consultation paper.

CIBSE members have the skills and knowledge to deliver carbon reduction in buildings through more energy efficient design and operation, and are therefore key people in the achievement of the objectives of the Carbon Reduction Commitment Energy Efficiency Scheme.

Administrative Information

Response submitted by Mr. Alex Nenadovic, Technical Manager, CIBSE

222, Balham High Road, London, SW12 9BS

ANenadovic@cibse.org

Please add Mr Chris Breslin, cbreslin@cibse.org to your list of contacts for emails about further consultations

CIBSE is a professional and learned society, a registered charity and licensed by the Engineering Council for the accreditation of professional engineers. It has just over 19,500 members at present.

Q1) We would like to address Q1 as it has some important implication i.e. who owns the In Home Display (IHD). If it is the supplier then what happens when you change supplier, and if it is the end user, say an elderly couple or low income family, will it be maintained. If it is the company will they offer an insurance premium against damage? I would not expect replacement costs to be smeared across the industry.

Q2) The issue of privacy in Q2 is always a sensitive one, but how will the issue of landlords and houses in multiple occupation (HMO) be dealt with. This technology could be very important in this sector which is usually low income but will they get access to the data. Could cause conflict? Maybe need to look at metering arrangements for HMO?

Q3) Regarding recovery of costs (Q3), how can a supplier absorb the cost when the customer may change their supplier in the next month. Indeed a customer who already has a smart meter may be more attractive to a competing supplier. There will have to be a central fund established for recovery of costs but how will this work and who will run it and separately audit costs?
We need to ensure that all customers are treated equally on roll out and disadvantaged are not left to last because they may be on pre-pay meters.
Also what guarantees will be provided by suppliers regarding damage to property, particularly if the meter is outside and IHD indoors. There are also dilapidation issues for tenants (cost and contractual)

Q4) Regarding Q4, the possibility of almost instant interruption makes the issue of supplier of last resort very important. We would not want some computer system to shut down home meters because a supplier has failed and no alternative supplier appointed quick enough. It may make more sense if the central data collector was the only party that could interrupt the supply so that a uniform standard is adopted across the industry? This is especially important in the event of supplier failure.

Q5) Why no IHD in Small and Medium Enterprises? The potential for savings are the same or greater and the incentive for staff participation often less than for a bill payer. If anything we need the facility for remote monitoring of IHD so that head office can monitor two or three small units.

Q6) We are nervous about item C in figure 1. Allowing other devices to connect to the meters may make hacking and the introduction of viruses more likely.
In the same table item e is a complexity that adds cost and is very rarely likely to be used. It also has the potential for interruption without warning to essential medical devices that may be installed in a house.
Also item F is totally inequitable and in the case of gas, potentially dangerous. The supplier should be talking to any person who cannot pay their bills and someone should visit the house so that the user knows that their supply is being disconnected.

Q7) When we start to talk about home area networks, we are starting to talk about serious costs, security issues and the potential for interference.
These costs cannot be smeared across everyone. How will these specialised costs be recovered? Why can't a single multi core cable connect the meters to the IHD and the IHD have the telecoms facility, rather than "networks"
(The very word would scare off many people who feel that there is enough intrusion into their lifestyle).
Should we not specify relatively low tech meters at first that can be upgraded remotely as the market matures and customers start to demand more?
The issue of cost recovery is easier then as those that want or need a Rolls Royce meter pay more for the upgrade. A lower standard will also increase the number of companies willing to invest in meter production facilities and hence increase supply and programme rollout speed.

Q8) Would it not be better for National Grid (NG) to be responsible for the total programme? They are the only guaranteed continuity in the supply chain and one large procurement programme should control costs (in

much the same way as British gas handled the conversion to natural gas). This would reduce the chance for bogus calls, manage cost recovery issues and eliminate the opportunity for mis-marketing.

Q9) Why do we need a central data and communications function? Keep it simple but flexible to make it as future proof as possible.

Q10) Our only concern about the DCC is that it is another cost and one that goes on for perpetuity. The suppliers should be benefiting from the CDC as they do not need meter readers and can balance their supply portfolio better. We therefore think that the costs should be absorbed in their regulated income.

Q12) We don't see why small non-domestic supplies should be treated any differently. They are usually larger users of electricity than the domestic supplies.

Q13) Yes

Q14) We need to ensure that the information that comes form the meters leads to more efficient balancing of networks and a significant drop in unaccounted for losses that are smeared across the industry. This will require integration of systems between network owners and suppliers and new license obligations.

Q15) As the meters are installed, unaccountable system losses should be reduced. The savings could be substantial and could be used to incentivise faster rollout.

Q17) We don't see how rollout can start before the appointment of a DCC. It is a recipe for confusion and excuses.

Q18) Why not make National Grid (NG) the initial DCC to draw on their experience of data collection and existing systems for the first three years. Then it can be tendered, possibly with specification alterations based on experience.

Q19) Yes, use expertise available at NG

Q20) There should be an obligation on the DCC to report on annual reductions in energy use arising form the introduction of the meters. This information should be in the public domain to ensure designers have more accurate data when predicting connected network loads in new development.
Please avoid the use of multi party modification panels as they slow down the whole process. Also ensure that end users are represented in the working parties and start to think about information dissemination at an early stage

Consultation Questions

Question 1: Do you have any comments on the proposed minimum functional requirements and arrangements for provision of the in-home display device?

Question 2: Do you have any comments on our overall approach to data privacy?

Question 3*: Do you have any comments on the proposed approach to ensuring customers have a positive experience of the smart meter rollout (including the required code of practice on installation and preventing unwelcome sales activity and upfront charging)?

Question 4: Have we identified the full range of consumer protection issues related to remote disconnection and switching to prepayment?

Question 5: Do you have any comments on the proposed approach to smaller non-domestic consumers (in particular on exceptions and access to data)?

Question 6*: Do you have any comments on the functional requirements for the smart metering system we have set out in the Functional Requirements Catalogue?

Question 7*: Do you see any issues with the proposed approach to developing technical specifications for the smart metering system?

Question 8: Do you have any comments on the proposals that energy suppliers should be responsible for purchasing, installing and, where appropriate, maintaining all customer premises equipment?

Question 9: Do you have any comments on the proposal that the scope of activities of the central data and communications function should be limited initially to those functions that are essential for the effective transfer of smart metering data, such as data access and scheduled data retrieval?

Question 10: Do you have any comments on the proposal to establish "DataCommsCo" (DCC) as a procurement and contract management entity that will procure communications and data services competitively?

Question 11: Do you have any comments on the proposed approach for establishing DCC (through a licence awarded through a competitive licence application process with DCC then subject also to the new Smart Energy Code)?

Question 12: Does the proposal that suppliers of smaller non-domestic customers should not be obliged to use DCC services but may elect to use them cause any substantive problems?

Question 13: Do you agree with the proposal for a Smart Energy Code to govern the operation of smart metering?

Question 14: Have we identified all the wider impacts of smart metering on the energy sector?

Question 15: Is there anything further we need to be doing in terms of our ensuring the security of the smart metering system?

Question 16*: Do you have any comments on the proposals for requiring suppliers to deliver the rollout of smart meters (including the use of targets and potential future obligations on local coordination)?

Question 17*: Do you have any comments on our implementation strategy? In particular, do you have any comments on the staged approach, with rollout starting before DCC services are available?

Question 18*: Do you have any other suggestions on how the rollout could be brought forward? If so, do you have any evidence on how such measures would impact on the time, cost and risk associated with the programme?

Question 19*: The proposed timeline set out for agreement of the technical specifications is very dependent on industry expertise. Do you think that the technical specifications can be agreed more quickly than the plan currently assumes and, if so, how?

Question 20*: Do you have any comments on our proposed governance and management principles or on how they can best be delivered in the context of this programme?