



Secure Electrans Ltd

28 Oct 2010 Response to:

**Ofgem Smart Metering
Implementation Programme
Prospectus**



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This document is the second stage of Secure Electrans response to Ofgem's consultation process via the Prospectus for the Smart Metering Implementation Programme published July 2010.

The following sets out our responses to the Prospectus and associated documents where input is requested input for 28 October 2010.

Smart Metering Implementation Programme: Prospectus

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

As stated in our 28 August response, we believe a basic energy consumption only device (IHD) will maintain consumer-sustained interest for a limited time before it becomes routine and boring, and thus negate its intended long-term purpose. However, an enhanced functionality device with applications that will woo the consumer will become centric to domestic life and will maintain consumer interest making the core energy management functionality interesting and important.

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

We take security and data privacy seriously and fully support the approach to security of the end-to-end metering system. However, we would like to stress the importance of data ownership. All data should be owned and protected by and for the consumer. The exception is aggregate data collection that could be used to help with demand load and supply management.

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?

We believe that the programme should not preclude the acquisition and addition of enhanced IHDs to the HAN by the consumer, so long as those products comply with the technical requirements of the programme.

Smart Metering Implementation Programme: In-Home Display

1. We welcome views on the level of accuracy which can be achieved and which customers would expect, in particular in relation to consumption in pounds and pence.

Accurate meter readings and use calculation can be accurate enough to generate real-life- billing. If the calculations and algorithms (energy usage from meter, tariff

information, calorific values, carbon emissions, etc.) cannot be presented accurately then they are no better than estimated readings. So long as the required data and information is made available to the IHD, there is no reason why it cannot calculate accurate usage information. This information should be presented in several choices to the consumer, one of which should be a graphical representation of pounds and pence. This applies to pre-pay (how much is left) and credit.

2. We welcome evidence on whether information on carbon dioxide emissions is a useful indicator in encouraging behaviour change, and if so, how it might be best represented to consumers.

We would suggest the information is displayed alongside the associated monetary values for the same consumption data. The main question is the carbon emissions calculation algorithm, which there does not seem to be a standard set.

3. We welcome views on the issues with establishing the settings for ambient feedback.

Noting the concern regarding the aged, impaired and disabled consumers we would suggest an intelligent approach to 'ambient feedback'; better to show a trend rather than ad-hoc individual 'spikes' in real-time consumption.

4. Do you think that there is a case for a supply licence obligation around the need for appropriately designed IHDs to be provided to customers with special requirements, and/or for best practice to be identified and shared once suppliers start to roll out IHDs?

Unless innovation is to be constrained it would be difficult to mandate design constraints for all possible solutions. Existing EU and UK legislation already addresses compliance with regards to the need of consumers with special requirements.

5. We welcome evidence on whether portability of IHDs has a significant impact on consumer behavioural change.

Noting comments regarding short-term interest in portability and concern regarding cost and replacement of batteries, we would recommend a mains and battery-powered product with short-term battery-powered usage.

6. Do you agree with the proposed minimum functional requirements for the IHD?

The market will naturally select or reject electronic devices based upon perceived value. We believe a basic energy consumption only device (IHD) will maintain consumer-sustained interest for a limited time before it becomes routine and boring, and thus negate its intended long-term purpose. However, an enhanced functionality device will become centric to domestic life and will maintain consumer

interest making the core energy management functionality interesting and important in the long term.

We have learnt from consumer testing and market research that consumers will initially embrace new technology and innovation but these alone will fail to maintain long-term acceptance and/or interest in a product — the result is market failure. A device such as an IHD will also need strong economical and convenience incentives and a method to win the hearts and minds of the consumer in order to maintain consistent interest in the device beyond the initial ownership period. We strongly believe that by adding application value features into the IHD such as the freedom to auto-switch energy supplier based on cheapest energy or best services, the capability to control the home alarm system, the CCTV system, a medical alert system, a facility to use it as an electronic picture frame, a facility to allow a one-to-one Skype style VOIP communications session for on-going support and/or help, a voice recognition system for the disabled, and so on — such additional features are key to maintaining the device as central to the consumer use and its overall market acceptance.

Once the IHD earns its status as a key lifestyle device akin to a mobile phone, the consumer will become increasingly interested in using it and thus will utilise the energy management functionality achieving the key benefit of the program.

It should be noted however, that to implement these additional consumer grabbing IHD features, (which may or may not necessarily be Smart Metering related), it will require more than the 0.6W power consumption limit imposed on the IHD (as stated in section 4.25 of the Statement of Design Requirements in the Prospectus). This limitation will seriously limit non-Smart Metering features — the very features that we believe will ultimately 'sell' the smart metering programme to the consumer. As an example, it is not possible to implement a full-colour, back-lit display within this limitation.

7. Do you have any views or evidence relating to whether innovation could be hampered by requiring all displays to be capable of displaying the minimum information set for both fuels?

We do not believe that handling both gas AND electric would hamper innovation. Having an IHD per fuel type would weaken long-term interest even more.

8. Do you agree with the proposals covering the roles of and obligations on suppliers in relation to the IHD?

We believe that the programme should not preclude the acquisition and addition of enhanced IHDs to the HAN by the consumer, so long as those products comply with the technical requirements of the programme. As such, we would agree with the limited obligation of suppliers in respect of IHDs

Smart Metering Implementation Programme: Consumer Protection

5. Do you agree that consumers should be able to obtain consumption information free of charge at a useful level of detail and format? How could this be achieved in practice?

Given that the information gathered is the consumer's data, it is reasonable to expect the consumer to have access to the information free of charge and at a useful level of detail and format. Bearing in mind data protection issues, and that a meter is obliged to hold 12 months of half-hourly data, either an IHD or PC-based HAN device would be the preferred method to access this data; 3rd -party means for analysing data on behalf of consumers not possessing computers will require mechanisms to ensure this is only done with the consumer's permission.

7. Could provision of an appropriate IHD help overcome meter accessibility issues to facilitate prepayment usage?

Yes. In most cases, the meter is inaccessible to the consumer. Sometimes, it is in an unsafe place such as a cluttered basement cluttered without light. A remotely connected IHD that communicates with the Smart meter will provide a solution for this. But for prepayment meters, the IHD should also provide a mechanism to take payment.

Smart Metering Implementation Programme: Communications Business Model

4. Do any measures need to be put in place to facilitate rollout in the period before DCC service availability and the transition to provision of services by DCC, for example requiring DCC to take on communications contracts meeting certain pre-defined criteria?

It does not matter how much care is taken over specifying the HAN/WAN interface, there will be areas of clarification/correction that will fail to show up until the detailed design stage of the DCC. If module replacement is not an option, remote firmware upgrade of WAN modules should be considered.

Smart Metering Implementation Programme: Data Privacy and Security

1. Do you have any comments on our overall approach to data privacy?

Secure Electrants fully concurs with the overall approach to data privacy.

3. Do you support the proposal to develop a privacy charter?

Secure Electrans supports the proposal to develop a privacy charter.

4. What issues should be covered in a privacy charter?

For consideration:

- Information is only used for the purposes for which it is provided.
- Other than for billing purposes, any information which can be linked to the consumer may only be provided with the consumer's permission.
- Where information is required for network management purposes, that information is provided in such a manner that the anonymity of the consumer is protected.

5. Do you agree with our approach for ensuring the end-to-end smart metering system is appropriately secure?

Secure Electrans agrees with the approach described.

Smart Metering Implementation Programme: Regulatory and Commercial Framework

12. What evolution do you expect in the development of innovative time-of-use tariffs? Are there any barriers to their introduction that need to be addressed?

Some HAN technologies and equipment (ours included) already allow for time-of-use tariffs. It is unlikely that battery-powered devices would cope well with Dynamic tariffs, especially at half-hourly rates and/or with little forewarning (it is assumed that electricity meters will be permanently powered). If the intention is for consumers to adjust their energy usage as a result of time-of-use tariffs, lack of warning is unlikely to help (a consumer is not going to react if he/she is unaware). There is also concern regarding consumer confusion if tariffs are made too complex.