

**SMART METERING IMPLEMENTATION PROGRAMME: CONSULTATION ON
DRAFT LICENCE CONDITIONS AND TECHNICAL SPECIFICATIONS FOR THE
ROLL-OUT OF GAS AND ELECTRICITY SMART METERING EQUIPMENT
(OCTOBER 2011)**

The Electrical Contractors' Association's (ECA's) response to the parts of above consultation relevant to electrical safety is as follows:

Consultation Questions

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| 47. | Do you have any views on the options presented to ensure that electrical contractors can work safely and efficiently between the electricity meter and the consumer unit/fuse box? Please provide evidence to support your reasoning. |
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The Electrical Contractors' Association has worked closely with the ESC, author of the business case referred to in the text accompanying this question (and appended hereto). The Electrical Contractors' Association does indeed have views on the options presented.

We strongly recommend the acceptance of either of the engineering solutions given as options 1 and 2 in the consultation document, not only in the safety interests of electrical contractors and electricians, but also in the safety interests of consumers. We are surprised and concerned that, on the basis of the evidence and robust case presented to date, the Government does not believe that sufficient benefits have been identified to justify the additional costs that would be incurred by amending the functional requirements to include an isolating switch in smart meters.

We believe the situation would have been different if OFGEM and subsequently DECC had acted upon the electrical industry's request to seek the equivalent qualitative and quantitative evidence from the electricity supply industry to contrast with the detailed evidence provided by the electrical installation industry. For example, it could then have been substantiated that the vast majority of 400,000+ temporary disconnections needed each year are currently effected by electricians for the reasons set out in the business case, and that the cost to consumers of having electricity suppliers/meter operators effecting temporary disconnections is disproportionate.

We would also reiterate the points made by the ESC in their business case which was initially rejected by DECC:

Significant investment

The investment would be small in relation to the overall cost of the smart meter programme, the future savings in energy costs for consumers claimed by DECC, and all the other benefits set out in our case. On the other hand, the dividends would be significant and long lasting.

Most consumers will not see any benefit

Over the minimum 15 year life of a smart electricity meter, over 6 m households – that is around 25% of all households - would benefit significantly from having an isolating switch in their meter, in terms of cost and convenience. The longer the life of the meter, the more would benefit.

Level of safety risk

The single-pole isolator options were included in our case in order to minimise costs. They would provide no lesser degree of safety than the only other means of isolation currently available – withdrawing the cut-out fuse.

The 'last gasp' alarm, which will potentially prevent the unauthorised removal of cut-out fuses in future, is likely to drive many more electricians to work live on the installation side of the meter in order to avoid the added administrative, time and cost burdens on their business of having to deal with the supplier/meter operator or register with a scheme, and to avoid the significant additional costs to their customers which could significantly affect their competitiveness.

Home safety deterrent

In addition to the impracticality of suppliers/meter operators providing a temporary de-energisation service to suit the needs of electricians and their customers, the cost of the alternatives available from suppliers/meter operators (such as £130 to have an isolator installed between the meter and consumer unit or £75 per visit to withdraw or replace a cut-out fuse) is disproportionate in relation to the cost of replacing a consumer unit. This would deter many householders from upgrading the level of protection in their homes with RCDs etc, potentially resulting in more deaths, injuries and fires than would be the case if an engineering solution was adopted.

Justified with hard evidence

All hard evidence available to the electrical installation industry was provided with the business case in June.

Conversely, Ofgem did not act on the industry's request last November to obtain equivalent hard evidence from the electricity supply industry. Had such qualitative and quantitative evidence been gathered as requested, it would no doubt have greatly supported the case for an engineering solution to be adopted. We believe the suppliers/meter operators would have struggled to justify their part in the ongoing industry problem.

Business as usual

It is appreciated that the raising of this isolation issue is likely to have been unwelcome in the context of such a complex programme. However, with the advent of the last gasp alarm in smart meters, there will be no 'business as usual'.

The decision not to adopt any of the engineering options given in our case could be perceived to be anti-competitive, as it will drive electricians who wish to work safely and legitimately either to pay for the services of electricity suppliers/meter operators, or to pay to join a registration scheme potentially authorised and controlled by them – all the costs of which the electricians will need to recover from their customers.

Previous efforts to introduce a registration scheme have been blocked by the electricity supply industry. There has been no indication that their stance will change. Their other

efforts to improve the situation – for example by providing adequate information for electricians on their websites – are discredited.

To force electrical contractors down the registration route would seem to be contrary to the Government's expressed intent to reduce regulatory burdens on small businesses.

The Electrical Contractors' Association urges DECC to reconsider their current stance on this significant issue, which we believe does not take into consideration the overall picture that extends beyond the smart meter programme.

Consultation Questions

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| 45. | Do you think that the prepayment meter contactor switch should be utilised to protect consumer premises from "floating neutral" network faults? Please provide evidence on the costs and benefits to support your reasoning. |
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The Electrical Contractors' Association supports the proposal to use the contactor in the meter, in conjunction with an appropriate voltage sensing device, to provide a measure of protection against over-voltage for household electrical equipment in the event of the combined neutral and earth conductor in a PME supply network becoming open-circuit. Such a measure could significantly reduce the extent and cost of damage to connected household electrical equipment, and of the associated fires.

An indication of the costs and benefits that could be provided by such a protective measure was given in the Parliamentary debate on the subject of metal thefts on 6 September 2011:

www.publications.parliament.uk/pa/cm201011/cmhansrd/cm110906/debtext/110906-0005.htm#11090710002395

For example: *"These thefts have led to 750 cases of loss of supply to at least 25,000-plus homes. Of these there were over 2,500 cases involving damage to 4 customer's TVs, computers and boilers as a result of the outages. In addition there have been 23 environmental incidents and at least 60 fires. A recent theft in Yorkshire cost local residents and insurers over £500,000 in broken electrical equipment and boilers as a result of a theft of just £40 of copper when customers' voltage rose from 240 V to a dangerous 430 V."*

However, such use of the contactor could not prevent the exposed- and extraneous-conductive-parts in the metered property attaining a dangerous voltage relative to Earth. Thus it would provide no protection against the risk of electric shock from all the normally earthed exposed metalwork in and around homes (such as the metal enclosures electrical appliances, metal pipework, electric gates, electric vehicles and the like).

