

Electrical Meter Installation Safety Measures

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The below table is a log of measures discussed by Energy UK members as potential approaches to improving the safety of electrical meter installations. We welcome parties adopting approaches in the interests of improving industry safety performance but are unable to provide assurance for the effectiveness of the approaches listed, as such the adoption of any of the approaches listed is at the adopting party's own risk.

*Please note that where links to specific products are included in the table, alternatives may also be available from other sources. Energy UK is not endorsing the use of any particular product. The links are used purely for illustrative and information purposes.

Issue	Measure	Description	Purpose	Relevant considerations	Notes
Exposed copper	Cable cutting tool	Cuts insulation on a cable to a set length.	Removes the risk of installer removing too much insulation and leaving copper cable exposed beyond the terminal barrel.	May need to be calibrated for different meter barrel types; may not be suitable for older cable types.	Since issuing this tool to its operatives, the supplier has reported zero instances of exposed copper post-install. Example of product: http://www.tavismanor.com/product/metermade
	Cable collar	Plastic collars around the part of the cable entering the terminus.	Removes the risk of copper being left exposed as the collar covers potentially exposed copper.		Used in conjunction with the cable cutting tool with same results.

		Can be installed proactively on all installs or reactively where the installer is not satisfied that copper is exposed.			
Over/ under tightened terminal screws	Torque screwdriver	Indicates the correct amount of torque has been put on the screw, by clicking when the torque reaches the calibrated level.	Reduces the likelihood of the operative under/ over tightening the screw by removing the subjectivity of the operative.	Not all components meet the same specification, therefore the screwdriver may need to be calibrated differently for different equipment; Screwdrivers need to be re-calibrated on a regular basis to maintain accuracy; Potentially significant asset cost.	
	New design of Terminal cover	A terminal cover which will not fit over the terminals if a terminal screw is proud.	Mitigates against under tightened screws. Cognitive reminder to operative if cover won't go on.	Merely an idea for investigation at present and does not currently exist. Will require collaboration with meter manufacturers to develop.	

	Reminder stickers	Stickers on the terminal cover with a notice reminding the operative to ensure the terminal screws are appropriately tightened.	The act of sticking the sticker and the message on the sticker remind the operative to tighten screws.	The operative must remember to stick on the sticker to receive the reminder.	
	Pre-assembled meter tail connections	Specially manufactured terminal block which has all cables included, with cable sheath cut to correct size, and designed to fit directly on top of the cut-out fuse, which then houses the electricity meter and DPI.	Removes risk of exposed copper as all cable sheathing is cut to size. Also aimed at speeding up installation time.	Primarily used in new-build/first installation scenarios. Can only be used with new cut-out types.	Example of product: http://www.cdg-uk.com/product-sectors/revenue-protection/
Cross polarity	Audible polarity checker	Device that is plugged into the ring-main prior to a meter installation which then checks for cross polarity and issues an alarm sound if cross polarity is detected.	This device prevents the operative unwittingly leaving cross polarity at the meter.	Still a manual activity.	
	Photographic evidence	The operative photographs the meter installation at various stages, and upon completion	Supports investigation; Provides a cognitive reminder to the operative to ensure that the meter cables are correctly connected.	Requires systems and mechanisms for photographs to be communicated from installer to supplier, and system storage capability to store photographs for a pre-determined period of	

				time for evidence purposes.	
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