

For the attention of:

DCP127 Committee
DCUSA

Dear Sirs

Re: Battery Powered Comms Hub for a Gas First Installation

EUA have been asked to comment to DCP127 on the feasibility of using battery power for a gas first communications hub.

One analysis provided a best case scenario of a 10 year operational life for a simple WAN connection operating once daily with no HAN support and utilising current battery technology – i.e. a one-device modem with one communications event per day and no additional interaction with HAN devices and using the same types of battery employed in commercially-available products today.

At the most basic level, therefore, a battery powered hub connected to a gas meter ONLY and with a very simple communications profile would need 2 x the battery capacity of a current standalone WAN radio modem or HAN connected gas meter to achieve the same operational life.

Conversely, if the same capacity battery were used in a battery powered hub as is used in HAN-only smart gas meters, the operational life of the hub would be less than 7 years.

Extending that battery powered hub to support security encryption, command signatures, public key management and the ESI functionality required by the UK's smart metering implementation as well as supporting communications with an IHD in gas-first installations will have a dramatic effect on battery consumption. Even with very careful power management and a steady-state device environment, our analysis suggests it would be extremely difficult to achieve more than a 2.5 year life for the same battery.

Finally, firmware upgrades are likely to be more common in the early part of the UK's smart rollout as industry works to stabilise deployed meters and hubs against the various DCC components. In this environment, gas-first hubs – in common with all SMS devices - are likely to be exposed to much more demanding operational use than would be expected under steady state conditions. In turn, for battery powered hubs, this is likely to lead to an operational life that falls significantly below the 2.5 year theoretical maximum.

It is clear that site revisits for battery/hub replacement at this frequency would impose an unacceptable frequency of visits to consumer premises, as well as significant visit and battery costs to the industry as a whole.

For and on Behalf of EUA Members